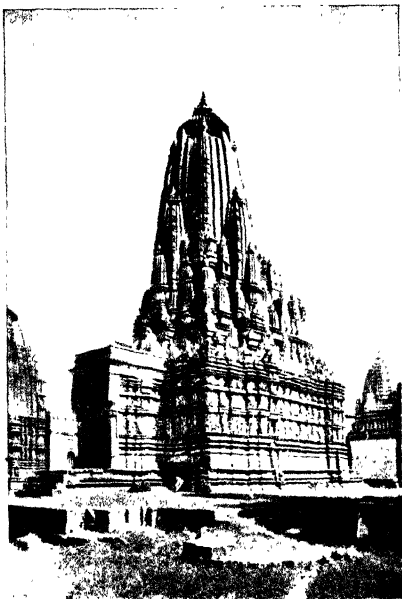
A HISTORY OF INDIAN AND EASTERN ARCHITECTURE

PLATE XVIII.

Temple of Parswanath at Khajuraho. (See page 50, Vol II.)

[Frontispiece.

HISTORY OF INDIAN AND EASTERN ARCHITECTURE

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INDIAN ARCHITECTURE

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AND

EASTERN ARCHITECTURE

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WITH NUMEROUS ILLUSTRATIONS

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CONTENTS.

BOOK V.

JAINA ARCHITECTURE.

BOOK VI.

NORTHERN OR INDO-ARYAN STYLE.

BOOK VII.

INDIAN SARACENIC ARCHITECTURE.

HISTORY OF EASTERN ARCHITECTURE.

BOOK VIII

FURTHER INDIA.

BOOK IX.

CHINA AND JAPAN.

LIST OF ILLUSTRATIONS IN VOLUME II.

LIST OF PLATES TO VOL. II.

A HISTORY

OF

INDIAN AND EASTERN ARCHITECTURE.

VOL. II.

BOOK V.

JAINA ARCHITECTURE.

CHAPTER I

INTRODUCTORY.

THE Jaina sect sprang up almost contemporaneously with the Buddhist Vardhamâna, their last apostle, was a native of Vaisâlî, in Tirhût, a contemporary of Sâkyamuni Buddha and died at Pawâ in Bihâr, during the lifetime of the latter[1] They are in two divisions—the Digambaras, that is, those "whose covering is the air," who regard nudity as a sign of holiness, though they are now obliged to part from the outdoor practice of their theory; and the Swetâmbaras, who are "clad in white" The Jaina religious theories and practices, in many respects, closely resemble those of the Buddhists They acknowledge no supreme governor, believe in transmigration, regard all animal life as sacred, reverence the Jinas or Tîrthankaras, because they believe them to have overcome all human desires, and to have attained Nirvana, but they have no veneration for relics They consist of ecclesiastics—Yatis or Sâdhus—and lay hearers or Srâvaks The laity are chiefly engaged in trade and banking[2] Jains are numerous in the larger towns all over India, but especially in Râjputâna, Gujarât, and neighbouring provinces, and also in Kanara and Mysore, where they are mostly Digambaras.

[1] *Ante*, vol. i. p. 130.

[2] For a sketch of their history and doctrines, see Bühler's 'Indian Sect of the Jainas,' English translation (London, 1903), and for their ritual, 'Indian Antiquary, vol xiii pp 191ffg.

Altogether the Jains form a small section of the population of India, according to the last census, numbering about 1,334,000 or scarcely 1 in 221 of the whole population.[1] They are by far more numerous in western India and Râjputâna than elsewhere; thus in Râjputâna there are 111,600 of the Digambara division, and fully twice as many Svetâmbaras; whereas in Mysore where the Digambaras outnumber the others by 6 to 1, they only count 11,700, and, whilst numerically fewer, they are equally less influential than their co-religionists farther north.[2]

The proper objects of worship are the twenty-four Jinas or Tîrthankaras, but, like the Buddhists, they allow the existence of Hindû gods, and have admitted into their sculptures at least such of them as are connected with the tales of their saints—among which are Indra or Sakra, Garuda, Sarasvatî, Lakshmî, Asuras, Nâgas, Râkshasas, Gandharvas, Apsarasas, etc., forming a pantheon of their own, divided into four classes — Bhavanâdhipatis, Vyantaras, Jyotishkas, and Vaimânikas[3]

The Tîrthankaras are each recognisable by a cognizance or *chihna*, usually placed below the image; and they are sometimes represented as of different colours or complexions thus the first five are of yellow or golden colour, as are also the 7th, 10th and 11th, 13th to 18th, 21st and 24th, the 6th and 12th are red, the 8th and 9th, white or fair, the 19th and 23rd are blue; and the 20th and 22nd, black Each has his own sacred tree, and is attended by a male and female Yaksha or spirit, usually represented on the right and left ends of the *âsana* or throne of the image, whilst a third attendant is carved on the centre of it. The Tîrthankaras with their distinctive signs, etc, are given in the following table.—

[1] The following statement, from the census returns of 1901, will indicate the distribution of the Jains —

In Bombay Presidency, Baroda and smaller states	584,240
Rajputâna including Ajmir	362,517
Panjâb	50,020
United Provinces and Oudh	84,582
Central India	112,998
Central Provinces and Berâr	67,822
Haidarâbâd	20,345
Mysore and Coorg	13,709
Madras Presidency	27,437
Bengal, Âsam, Kashmîr, etc	10,478
Total Jaina population	1,334,148

[2] The Digambaras seem to have migrated to the south, owing to a severe famine in Hindustan, somewhere about 50 B.C perhaps under the leadership of the later Bhadrabâhu.—'Indian Antiquary,' vol xx. pp. 350f; and xxi. pp 159f.

[3] Appendix to Bühler's 'Indian Sect of the Jainas,' English translation, pp. 61 *et seqq.*

No.	NAME.	DISTINCTIVE SIGN.	BORN.	DIED.
1	Âdi-nâtha or Rishabha	Bull	Vinitanagarî	Ashtâpada
2	Ajita-nâtha	Elephant	Ayodhyâ	Samet *S*ikhar
3	Sambhava	Horse	*S*râvasti	"
4	Abhinandana	Ape	Ayodhyâ	"
5	Sumati-nâtha	Curlew	"	"
6	Padmaprabha	Lotus	Kau*s*âmbî	"
7	Supâr*s*va-nâtha	Swastika mark	Benares	"
8	Chandraprabha	Crescent-moon	Chandrapura	"
9	Pushpadanta	Crocodile	Kânandinagari	"
10	*S*îtala-nâtha	*S*rîvatsa mark	Bhadrapura	"
11	*S*reyâm*s*a-nâtha	Rhinoceros	Simhapura	"
12	Vâsapûjya	Buffalo	Champâpurî	Champâpurî
13	Vimala-nâtha	Boar	Kampilyapura	Samet *S*ikhar
14	Ananta-nâtha	Falcon	Ayodhyâ	"
15	Dharma-nâtha	Thunderbolt	Ratnapurî	"
16	*S*ânti-nâtha	Antelope	Gajapura or Hastinapura	"
17	Kunthu-nâtha	Goat		"
18	Ara-nâtha	Nandyâvarta mark		"
19	Malli-nâtha	Water-jar	Mathurâ	"
20	Munisuvrata	Tortoise	Râjagriha	"
21	Nami-nâtha	Blue water lily	Mathurâ	"
22	Nemi-nâtha	Conch shell	Sauripura	Mt Girnâr
23	Pârswa-nâtha	Serpent	Benares	Samet *S*ikhar
24	Mahâvira, or Vardhamâna	Lion	Kundagrâma	Pâwâpuri

Among these the most frequently represented are the first, sixteenth, and last three.

There are few of the problems connected with this branch of our subject so obscure and so puzzling as those connected with the early history of the architecture of the Jains. This style, always singularly chaste and elegant, was essentially Hindû, and was doubtless largely common to all Hindû sects in western India, but in its evolution it became modified by Jaina taste and requirements. And, the Brâhmans in turn, through the influence of the workmen, gradually accepted most of the stylistic improvements of their rivals. This seems to have been more especially the case in Gujarât and Râjputâna, where the Jains were very numerous and influential, and we might almost with equal propriety designate their style of architecture as a Western Hindû style, but this would lead to the inclusion of examples of greater diversity, and interfere with clearness of treatment. When we first practically meet with it in the early part of the 11th century at Âbû, or at Girnâr, it is a style complete and perfect in all its parts, evidently the result of long experience and continuous artistic

development. From that point it progresses during one or two centuries towards greater richness, but in doing so loses the purity and perfection it had attained at the earlier period, and from that culminating point its downward progress can be traced through abundant examples to the present day.

When, however, we try to trace its upward progress the case is widely different. General Cunningham found some Jaina statues at Mathurâ belonging to the period of the Kushan kings, and excavations there in 1887 and following seasons, brought to light portions of a carved rail, statues, and numerous other sculptures, belonging to a stûpa, and two or more ancient temples there, but among them were images belonging to so late a date as the 11th century.[1] Before this last period, we have only fragments of temples of uncertain origin and date, and all in so very ruined a condition that they hardly assist us in our researches. Yet the Jains during the whole of this interval were a flourishing community, and had their temples as well as their rock-cut sanctuaries, such as we see at Khandagiri in Orissa, at Junâgadh, Elûrâ, Ankai, Aihole, and elsewhere.

Meanwhile one thing seems tolerably clear, that the religion of the Buddhists and that of the Jains were so similar to one another, both in their origin and their development and doctrines, that their architecture must also at first have been nearly the same. In consequence of this, if we could trace back Jaina art from about the year 1000, when practically we first meet it, to the year 600 or 700, when we lose sight of Buddhist art, we should probably find the two very much alike. Or if, on the other hand, we could trace Buddhist art from A.D. 600 to A.D. 1000, we should as probably find it developing itself into something like the temples on Mount Âbû, and elsewhere, at that period of time.

A strong presumption that the architecture of the two sects was similar arises from the fact of their principal sculptures being so nearly identical that it is not always easy for the casual observer to distinguish what belongs to the one and what to the other, and it requires some experience to do this readily. The Tîrthankaras are generally represented seated in the same cross-legged attitude as Buddha, with the same curly hair, and the same stolid contemplative expression of countenance. Where, however, the emblems that accompany the Jaina saints can be recognised, this difficulty does not exist. Another test arises from the fact that the Digambara

[1] 'Archæological Reports,' vol. i. pp. 231-244, plates 39 and 40, vol. iii. pp. 31 *et seqq.*, plates 13 and 15, vol. xi. p. 75; vol. xvii. pp. 107-112, and plates 30 and 31; vol. xx. pp. 30-39, and plates 2-5; V. Smith, 'The Jain Stûpa, etc., of Mathurâ.'

Jaina saints are represented as naked which, in ancient times, was perhaps the orthodox sect, though the *S*wetâmbaras are clothed much like the Buddhists. When, therefore, a figure of the class is represented as naked it may certainly be assumed to belong to the Digambara sect, the *S*wetâmbara images have a loin-cloth; these and other traits, as the attendant Yakshas and Yakshinîs carved on the thrones, and the position of the hands, enable us to distinguish between Buddhist and Jaina bas-reliefs and sculptures. Probably all the earlier Jaina caves were excavated for Digambara Jains.[1]

It is now quite apparent that, in consequence of our knowledge of Buddhist architecture being derived almost exclusively from rock-cut examples, we miss a great deal which, if derived from structural buildings, would probably solve this question of early similarity among other problems that perplex us.

The same remarks apply equally to the Jaina caves Those at Udayagiri, Junâgadh, Bâdâmi, Elûrâ, and Ânkai, do not help us in our investigation, because they are not copies of structural buildings, but are rock-cut examples, which had grown up into a style of their own, distinct from that of structural edifices.

The earliest hint we get of a twelve-pillared dome, such as those universally used by the Jains, is in a sepulchre at Mylassa in Caria,[2] probably belonging to the 4th century. A second hint is found in the great cave at Bâgh (Woodcut No. 113) in the 6th or 7th century, and there is little doubt that others will be found when looked for—but where? In the valley of the Ganges, and wherever the Muhammadans settled in force, it would be in vain to look for them These zealots found the slender and elegant pillars, and the richly carved horizontal domes of the Jains, so appropriate and so easily re-arranged for their purposes, that they utilised all they cared not to destroy. The great mosques of Ajmîr, Delhi, Kanauj, Dhâr, and Ahmadâbâd, are merely reconstructed temples of the Hindûs and Jains. There is, however, nothing in any of them that seems to belong to a very remote period —nothing in fact that can be carried back to times long, if at all, anterior to the year 1000. So we must look further for the cause of their loss.

As mentioned in the introduction the curtain drops on the

[1] In Jaina images the hands are always laid in the lap, the clothing is scanty even on *S*wetâmbara images, and the thrones and attendants differ, whilst the Jinas or Arhats only have cognisances, and the *S*rîvatsa figure on the breast. The figures of Pârswanâth are distinguished by snake-hoods over them; and with the Digambaras, Supârsva—the seventh Jina—has a smaller group of hoods over his head. The *S*wetâmbaras also decorate their images with crowns and ornaments, the other sect do not

[2] 'Ancient and Medieval Architecture,' vol. i. p. 371, Woodcut No. 242.

drama of Indian history about the year 650, or a little later, and for three centuries we have only the faintest glimmerings of what took place within her boundaries. Civil wars seem to have raged everywhere, and religious persecution may have prevailed. When the curtain again rises we have an entirely new scene and new *dramatis personæ* presented to us. Buddhism had disappeared, except in a corner of Bengal, and Jainism had continued in influence throughout the west, and Vaishnavism had usurped its inheritance in the east. It was most probably during these three centuries of misrule that the structural temples and vihāras of the Buddhists disappeared, and the earlier temples of the Jains, and there is a gap consequently in our history which may be filled up by new discoveries in remote places,[1] but which at present separates this chapter from the account of Buddhist Architecture in Book I. in a manner it is not pleasant to contemplate.

[1] The antiquities of Java will probably, to some extent at least, supply this deficiency, as will be pointed out in the account of the architecture of the island.

264 Yavana guard at Rani ka-naur Cave, Udayagiri

CHAPTER II.

JAINA CAVES.

CONTENTS.

Orissa Caves—Bâdâmi and Aihole—Dhârâsinvâ—Ânkai—Elûrâ.

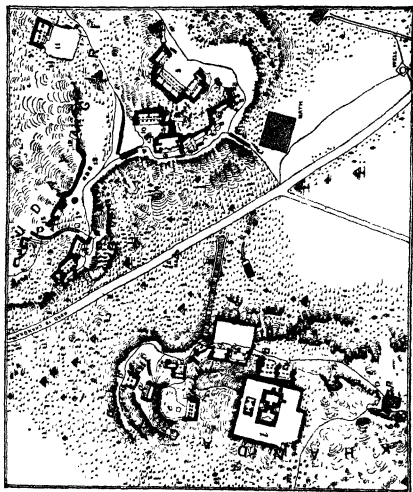
The Jains, like the other sects, excavated cave-dwellings or *bhikshugrihas* for their recluses; but the nature of their religion did not require large assembly halls like the chaityas of the Buddhists They naturally followed the fashion of the other contemporary sects, to which indeed all India was accustomed. We find them, consequently, excavating caves in Orissa and at Junâgadh or Girnâr in Gujarât, as early as the 2nd century B C, and at later dates at Bâdâmi, at Pâtna in Khandesh, at Elûrâ, Ânkai, and elsewhere.[1] And before entering upon the characteristic examples of the later Jaina Architecture, it may be as well, at this stage, to give some account of the cave architecture of the sect

ORISSA CAVES.

The Orissa caves have already been referred to, as they were long mistaken as a group of Buddhist excavations[2] They are probably as old as anything of the kind in India and, unless some of the Bihâr excavations were Jaina, they are the earliest caves of the sect The oldest and most numerous are in the hill on the east called Udayagiri; the more modern in the western portion designated Khandagiri The picturesqueness of their forms, the character of their sculptures and architectural details, combined with their great antiquity, render them one of the most important groups of caves in India, and one that is most deserving of a careful scientific survey. The accompanying plan (Woodcut No. 265) will help the reader to understand their arrangement

What we know of the age of the older caves here is principally derived from a long inscription on the front of one of the oldest,

[1] Buddhist and Jaina caves are known all over India as *lenas*
[2] *Ante*, vol i. p. 177.

known as the Hâthî-gumphâ or Elephant Cave. It is unfortun-

265. Udayagiri and Khandagiri Caves in Orissa.[1] Scale 150 ft to 1 in.

ately in a very dilapidated condition, but from the latest and

[1] References —
Udayagiri caves —1 Rani Hansapûra cave; 2, 3. Vajadâra caves, 4. Chhotâ Hâthî-gumphâ; 5 Alakâpûri; 6 Jayavijaya, 7. Thâkurani, 8 Panasa-gumphâ; 9. Pâtâlapuri, 10 Manchapûri; 11 Ganesa-gumphâ; 12 Dhânagarha; 13. Hâthî-gumphâ, 14 Sarpa-gumphâ; 15. Bâgha-gumphâ; 16. Jambesvara, 17. Haridâsa-gumphâ; 18 Jagannâtha; 19. Rasui.
Khandagiri caves: — a, b. Tâtwâ-gumphâ, Nos. 1 and 2; c An open cave, d. Tentuli; e. Ananta-gumphâ; f Khandagiri-gumphâ; g. Dhânagarha; h Nabamuni; j. Bârabhuji; k Trisula-gumphâ; l Jaina Temple; m. Small votive stûpas; n. Ruined caves; o. Lalâtendra-gumphâ; p. Akâsa-gangâ.

fullest translation of it,[1] we learn that a king Khâravela of Kalinga constructed rock-dwellings and bestowed abundant gifts on Jaina devotees, and that he assisted the Andhra king *S*âtakarni; also that the thirteenth year of his reign coincided with the 165th of the Maurya Era, that is, about 155 B.C.[2] Palæographically also, the forms of the letters used in this and some other inscriptions here are almost identical with those used by A*s*oka in the copy of his edicts on the Dhauli rock close by, and in that found at Jaugada, near the southern corner of the Chilkya lake. The first presumption, therefore, is that they may be within a century of the same date, which is supported by this inscription.

The inscription, as well as another in the Svargapûri or Vaikuntha cave, also commences with a distinctively Jaina formula — a very important point that had previously been overlooked This supports the conclusion stated above as to the origin of these caves.[3]

This Hâthî-gumphâ cave, probably the oldest here, looks as if it might have been a great natural cavern, the brow of which had been smoothed to admit of the inscription. There are indications, however, that it had at least been improved by art; but the rock is of loose and friable texture, and the present state of the cave is largely due to decay, besides, so important a record would hardly be placed over an excavation of no consideration.

The whole style of the architecture and sculpture in the older caves here points to a period quite as early as that of the Sânchi gateways and the small vihâra at Bhâjâ, and we cannot be far wrong in ascribing most of them at least to the 2nd century before our era. Nor is any trace of Buddhism found among them: the figures of Gaja Lakshmî or *S*rî, of snakes, sacred trees, the Svastika and other symbols are all as much Jaina as Buddhist, and in several of the caves

[1] This inscription first attracted the attention of Stirling, and a plate, representing it very imperfectly, is given in the 15th volume of the 'Asiatic Researches' It was afterwards copied by Kittoe, and a translation, as far as its imperfection admitted, made by Prinsep ('Journal of the Asiatic Society of Bengal,' vol. vi. pp. 1080ff) In 1866 Pandit Bhagwânlâl Indrâji, Ph D., made a careful copy of it on the spot, and Mr. Locke in 1871-1872 took a plaster cast of it: from these the Pandit studied the record afresh, and published his version in the 'Actes du sixième Congrès internat. des Orientalistes' (Leiden, 1884), vol. iii. pt. 2, pp. 135-149. This gave quite a new point in Indian Chronology. —'Epigraphia Indica,' vol. ii. pp. 88, 89.

[2] Even as late as 1880, Bâbu Râjendralâl Mitra, who had the most ample opportunities of examining every detail of the Orissa caves, had no suspicion of their being of other than Buddhist origin; and his reading of the Hâthî-gumphâ inscription — like the whole of his work — is simply worthless.—'Antiquities of Orissa,' vol. ii. pp. 17ff.

[3] Hiuen Tsiang, in the 7th century stated that Kalinga was then one of the chief seats of the Jains.—Beal, 'Buddhist Records,' vol. ii. p. 208.

—not perhaps the earliest — are found figures of the Jaina Tîrthankaras and their attendants.[1]

Close to the Hâthî-gumphâ is a small cave, known as Sarpa, the whole fronton of which over the doorway is occupied by a great three-headed Nâga, and may be as old as the Hâthî cave. The inscription on it merely says that it is "the unequalled chamber of Chûlakama," who seems also to have excavated another cave here, to the west of the Hâthî-gumphâ, called Haridâsa[2]—a long room with three doorways behind a verandah.

Besides these, and smaller caves to be noticed hereafter, the great interest of the Udayagiri caves centres in two—the so-called Ganesa cave, and that called the Râj Rânî, Rânî-kâ-naur, or Rânî Hansapûra, or simply Rânî-gumphâ, from a baseless Hindû tradition that it was excavated by the Rânî of Lalâtendra Kesarî, the reputed builder of the Bhuvaneswar temple in the 7th century.

The former is a small cave, consisting of two cells, together 30 ft. long by 10 ft. wide, in front of which is a verandah, slightly longer, that was once adorned with five pillars, though only three are now standing (Woodcut No 266)[3] There is an inscription on the back wall of this cave in mediæval characters, dedicating it to Jagannâth; but this is evidently an addition, probably cut when the image of Ganesa was also inserted.[4] The style of the architecture may be judged of from the annexed woodcut, representing one of its pillars (Woodcut No. 267) They are of extreme simplicity, being square piers, changing into octagons in the centre only, and with a slight bracket of very wooden construction on each face The four doorways leading into the cells are adorned with the usual horseshoe-formed canopies copied from the

266 Ganesa Cave (From a Plan by Mr Locke) Scale 50 ft to 1 in

[1] It is to be regretted that when the Bengal Government twice sent survey parties to Orissa, and spent so much on the publication of their work, no adequate directions were given as to what should be observed and illustrated

[2] This was called Pawan gumpha by Prinsep — probably by mistake The names attached to the different caves, however, are much confused in the different accounts that called Vaikuntha pûri by Kittoe and R Mitra seems to be now called Svargapûri, the Alakapûri, a double-storeyed cave, is apparently the Svargapûri of Râjendralal Mitra, who mixes up the Alakâpûri and Chhota Hathi-gumpha, the Jodev cave of Kittoe has been called Jayavijaya, the names of Patalapuri and Manchapûri have been interchanged by Rajendralâl; and so on,—making it almost impossible to reconcile the various accounts.—'Official Report to Bengal Government, by Babu Manmohan Chakravarti,' August 1902

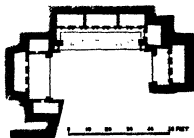
[3] A recent attempt has been made on the part of Government to "restore" these caves This was ill-advised, and the restored elephants at the entrance steps here do not conform to the original figures, whilst the new pillars do little credit to the Executive.

[4] 'Journal of the Asiatic Society of Bengal,' vol. vi. p 1075.

fronts of the chaitya halls, and which we are now so familiar with from the Bharaut sculptures, and from the openings common to all wooden buildings of that age. The compartments between the doors of the cells contain figure sculptures—one of them seemingly almost a replica of a scene on the frieze of the upper storey of the Rânî-gumphâ. The centre panel is occupied by a roof carved in low relief with three pinnacles, and a rail-pattern frieze over it.

267. Pillar in Ganesa Cave, Katak. (From a Sketch by the Author.)

The other cave is very much larger, being two storeys in height, both of which were originally adorned by verandahs: the upper 63 ft long, opening into four cells, the lower 43 ft., opening into three (Woodcuts No. 268 and 269). All the doors leading into these cells have jambs sloping slightly inwards, which is itself a sufficient indication that the cave is long anterior to the Christian Era. Of the nine pillars of the upper verandah only two remain standing, and these much

268. Upper storey, Rânî-gumphâ. Scale 50 ft. to 1 in.

269. Lower storey, Rânî-gumphâ. (From Plans by H H Locke.)

mutilated, while all the six of the lower storey have perished.[1] It seems as if from inexperience the excavators had not left sufficient

[1] The pillars in both storeys were restored a few years ago by slender shafts, described by the Collector of Puri as "shoddy work of the most gim-crack description."—'Report to Government of Bengal,' 16th May 1902.

substance to support the mass of rock above, and probably in consequence of some accident, the mass above fell in, bearing everything before it. Either then, or at some subsequent period, an attempt has been made to restore the lower verandah in wood, and for this purpose a chase has been cut through the sculptures that adorned its back wall, and they have been otherwise so mutilated that it is almost impossible to make out their meaning. The accompanying section (No. 270) will illustrate the position of this wooden adjunct and that of the two storeys of this cave. Fortunately, the sculptures of the upper verandah are tolerably entire, though in some parts they, too, have been very badly treated.

270 Section of Rânî-gumphâ
Scale 25 ft to 1 in

Besides this, which may be called the main body of the building, two wings project forward, that on the left 40 ft, that on the right 20 ft, and, as these contained cells on both storeys, the whole afforded accommodation for a considerable number of inmates

The great interest of these two caves, however, lies in their sculptures In the Ganesa cave, as already mentioned, there are two bas-reliefs The first represents a man asleep under a tree, and a woman watching over him To them a woman is approaching, leading a man by the hand, as if to introduce him to the sleeper Beyond them a man and a woman are fighting with swords and shields in very close combat, and behind them a man is carrying off a female in his arms[1]

The second bas-relief comprises fifteen figures and two elephants. There may be in it two successive scenes, though my impression is, that only one is intended, while I feel certain this is the case regarding the first In the Rânî cave the second bas-relief is identical, in all essential respects, with the first in the Ganesa, but the reliefs that precede and follow it represent different scenes altogether It is, perhaps, in vain to speculate what episode this rape scene represents, probably some tradition not yet identified, its greatest interest for our

[1] There is a very faithful drawing of this bas relief by Kittoe in the 'Journal of the Asiatic Society of Bengal,' vol vii plate 44 But casts of all these sculptures were taken in 1871 1872 by Mr Locke, of the School of Art, Calcutta, and photographs, some of which were published on plate 100 of 'Tree and Serpent Worship,' 2nd ed, 1873; 'Cave Temples,' plate 1; and in Râjendralal Mitra's 'Antiquities of Orissa,' vol. ii, plates 6-14.

present purposes is that the first named is singularly classical in design and execution, the latter wilder, and both in action and costume far more purely Indian. Before the discovery of the Bharaut sculptures, it is hardly doubtful that we would have pronounced those in the Ganesa cave the oldest, as being the most perfect. The Bharaut sculptures, however, having shown us how perfect the native art was at a very early date, have considerably modified our opinions on this subject; and those in the Rânî cave, being so essentially Indian in their style, now appear to me the oldest. Those in the Ganesa-gumphâ, as more classical, may have been executed at a subsequent date, but still both long anterior to the Christian Era. The other bas-reliefs in the Râj-Rânî cave represent scenes of hunting, fighting, dancing, drinking, and love-making —anything, in fact, but religion or praying in any shape or form.

From the sculptures at Sânchi and Bharaut, we were prepared to expect that we should not find any direct evidence of Mahâyâna Buddhism in sculptures anterior to the Christian Era; but those at this place are not Buddhist but Jaina, and till we are better acquainted with the Jaina legends than we are at present, we cannot hope to determine what such sculptures really represent. Besides these bassi-rilievi, there is in the Rânî cave a figure, in high relief, of a female (?) riding on a lion. Behind him or her, a soldier in a kilt, or rather the dress of a Roman soldier, with laced boots reaching to the calf of the leg (Woodcut No 264)—very similar, in fact, to those represented on plate 28, fig. 1, of 'Tree and Serpent Worship,' as strangers paying their addresses to a three-storeyed stûpa—and behind this, again, a female of foreign aspect.

In another cave of the same group—the Jayavijaya, called by Kittoe the Jodev-Garbha—and of about the same age, between the two doorways leading to the cells, a sacred tree is being worshipped by two men and two women with offerings. It is surrounded by the usual rail, and devotees and others are bringing offerings.[1] The verandah has a male figure outside at the left end, and a female at the right.

In yet another cave, in the Khandagiri hill, similar in plan to the Ganesa cave, and probably older than either of the two last-mentioned, called Ananta-garbha, are bassi-rilievi over the doorways: one—on the right—is devoted, like the last, to Tree worship, the other to the honour of *Srî* (*vide ante*, vol. i p. 50). She is standing on her lotus, and two elephants, standing likewise on lotuses, are pouring water over her.[2] The same representation occurs once, at least, at Bharaut, and ten times at Sânchi, and,

[1] 'Journal of the Asiatic Society of Bengal,' vol. vii. plate 42.

[2] 'Tree and Serpent Worship,' plate 100, p 105; 'Cave Temples,' plate 1.

so far as I know, is the earliest instance of honour paid to god or man in Indian sculptures The third to the left is partly broken away by the fall of the wall between the next two doors; but enough is left to show that it represented Sûrya, the sun-god, in his chariot drawn by four horses, with his two wives, much as in the small early vihâra at Bhâjâ;[1] and the fourth had been filled by a large elephant facing outwards, with one on each side holding up flowers The arches over these sculptures and the frieze connecting them are also carved with figures in quaint positions or flying, and each arch is covered by two triple-headed serpents whose hoods are raised at the sides of the arches.

The pilasters by the sides of the doorways are of a curious, if not exceptional class, and more like some of those found in early caves in the West than any others on this side of India (Woodcut No 271) They are evidently copied from some form of wooden posts stuck into stone bases, as is usual at Kârlê, Nâsik, and other Western caves. Here, however, the surface is carved to an extent not found elsewhere, and betrays a wooden origin indicative of the early age to which the excavation of this cave must be assigned The animal figures on the capitals and on other caves here is also a feature generally marking an early date,

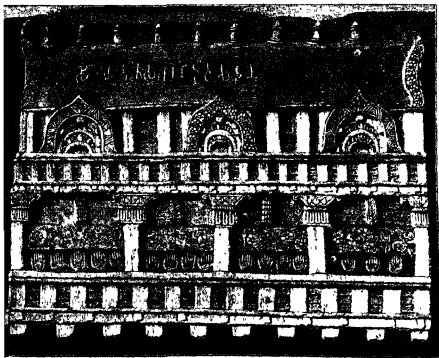
271 Pilaster from Ananta-gumphâ

272 Tiger Cave, Udayagiri

as is also the inward slope of the door jambs. The pillars of the verandah are gone, and a new support has been inserted by the Public Works engineers.

[1] A sketch of this sculpture was published in Fergusson's 'Archæology in India' (1884), p. 34. The small figure in front of the chariot with a jar is perhaps meant for Rahu carrying off the Amrita.

One other cave here—the Bâgh-gumphâ—deserves to be mentioned. It is a great boulder, carved into the semblance of a tiger's head, with his jaws open, and his throat, as it should be, is a doorway leading to a single cell about 6 ft. 4 in. deep, by 7 to 9 ft. wide (Woodcut No. 272). It is a caprice, but one that shows that those who conceived it had some experience in the plastic arts before they undertook it. The door jambs slope inwards slightly, and the pilasters on each side have winged elephants on the capitals and vase-shaped bases. From the form of the characters also which are engraved upon it, it is undoubtedly anterior to the Christian Era, but how much earlier it is difficult to say.

A little lower down the Khandagiri hill than the Ananta are

273 Representation of a Hall from Bharaut sculptures.

two caves called Tâtvâ-gumphâ, the upper consisting of one room 16½ ft. to 18 ft. long by 17 ft. deep and 5 ft. 9 in. high, having three entrances.[1] The doors are flanked by pilasters with

[1] Cunningham's 'Archæological Survey Reports,' vol. xiii. (by Mr. Beglar), pp. 81f. Like several others, it is not mentioned in Râjendralâl Mitra's 'Antiquities of Orissa.'

capitals of the Persepolitan type, and the façade over these is sculptured as a long ridged roof with pointed spikes, comparable with representations found at Bharaut (Woodcut No. 273). Under this is a frieze of five-barred railing with elephants carved at each end, and the tympana are flanked by birds, a peacock, and a hare, and within are filled with carved ornaments. But it is of special interest that the walls have once been covered with a coating of fine plaster. On the middle of the back wall are sculptures of the sun and moon, on each side of which a long inscription once extended—of which remains still exist—written on the plaster with a red pigment.[1]

Space forbids more detail of these interesting caves, and until we have a scientific survey of the whole—inclusive of many that only await clearing of the earth in which they are buried—made in the full light of all the knowledge we now possess, it is impossible to do them justice from archæological and historical aspects.

Great light was thrown on the history of Jaina excavations by the discovery of a Jaina cave at Bâdâmi, 64 miles south of Bîjâpur, with a fairly ascertained date.[2] There is no inscription on the cave itself, but there are three other Brahmanical caves in the same place, one of which has an inscription with an undoubted date, *S*aka 500 or A.D. 579; and all four caves are so like one another in style that they must have been excavated within the same century. The Jaina cave is probably the most modern; but if we take the year A.D. 650 as a medium date, we may probably consider it as certain within an error of twenty years either way.

The cave itself is small, only 31 ft. across and about 16 ft. deep, and it is hardly doubtful that the groups of figures at either end of the verandah are integral. The inner groups, however, are certainly of the age of the cave, and the architecture is unaltered, and thus becomes a fixed standing-point for comparison with other examples; and when we come to compare it with the groups known as the Indra Sabhâ and Jagannâth Sabhâ at Elûrâ, we cannot hesitate to ascribe them to more than a century later.

With these we may here mention that at Aihole, besides a Brahmanical cave, there is also a Jaina one of somewhat larger dimensions than that at Bâdâmi. The verandah has four pillars in front, is 32 ft. in length and 7 ft. 3 in. wide, and has a carefully carved roof. The hall is 17 ft. 8 in. wide by 15 ft. deep,

[1] No satisfactory tracing of this has been made; and the verandah of the cave has now been supported by two piers of Public Works construction.

[2] Burgess, 'Archæological Survey of Western India', vol. i. (1875), p. 25, plates 36 and 37.

has roomy chapels at each side, and at the back is the shrine 8½ ft. square, containing a seated figure of Mahâvîra. The front of the shrine is supported by two carved pillars, and at each side of the entrance is a Dwârapâla carved on the wall as in Brahmanical and later Buddhist caves. The style of the pillars and the whole execution point to about the 7th century as the probable date of the excavation.[1]

Near Dhârâsinvâ, in the Haidarâbâd districts about 37 miles north from Sholapur, are several Jaina caves, of which two are of considerable size, the hall of the second in the group being quite 80 ft. deep and from 79 to 85 ft. across, with eight cells in each of the side walls and six in the back besides the shrine. The roof is supported, as at Bâgh, by a double square of pillars, the outer of twenty and the inner of twelve piers But the rock is a conglomerate of unequal texture, and has greatly decayed in parts Much of the front wall and all the pillars of the verandah have fallen away, whilst the great frieze over the façade, once covered with bold Jaina sculptures, is so abraded as to be now unintelligible. Cave III., next to this, has a twenty pillared hall measuring about 59 ft. square, with five cells on each side and in the back the shrine and four cells. The verandah still retains its six pillars in front, and five doors lead from it into the hall. The next cave is about half the dimensions of this, and in all three the pillars, doorways, and friezes show remains of a good deal of ornate carving somewhat similar to what is found at Aurangâbâd, and on the later Ajantâ caves[2]

At Kanhar, near Pitalkhorâ, are two Jaina caves, and there are others at Châmar Lenâ near Nâsik, and seven at Ankâi in Khandesh which are overlaid with sculpture. But these and others belong to the latest of rock excavations—probably of the 11th and 12th centuries—and have been described and illustrated elsewhere.[3]

ELÛRÂ JAINA CAVES.

The Jaina group at Elûrâ has been considered as the most modern there: an impression arising partly from the character of the sculptures themselves, which are of later Jaina style—more, however, from the extreme difficulty of comparing rock-

[1] 'Archæological Survey of Western India,' vol. i. p 37 and plates 47, 48; 'Cave Temples,' pp. 503-505, and plate 93.

[2] Drawings and plans with an account of these caves are given in 'Archæological Survey of Western India,' vol. iii. pp. 4-8, and plates 1-8.

[3] 'Cave Temples,' pp 492, 493, and 505-508, with plates 94, 95; 'Archæological Survey of Western India,' vol v. pp. 57-59, and plates 12, and 47-50. A few other Jaina caves exist at Junâgadh, and scattered over the Dekhan.—'Cave Temples,' p. 490.

cut examples with structural ones. Our knowledge of the architecture of temples is, in nine cases out of ten, derived from their external forms, to which the interiors are quite subordinate. Cave-temples, however, have practically no exteriors, and at the utmost façades modified to admit more light than is usual in structural edifices, and then strengthened and modified so as to suit rock-cut architecture As no ancient Jaina temple—except that of Meguti at Aihole—has a dated inscription upon it, nor a tolerably authenticated history, it is no wonder that guesses

274. Entrance to the Indra Sabhâ Cave at Elûrâ. (From a Photograph.)

might be wide of the truth. Now, however, that we know positively the age of one example, all this can be rectified, and there seems no doubt that the Indra Sabhâ group was excavated —say not before A.D 850

When with this new light we come to examine with care the architecture of these façades, we find the Elûrâ group exhibits an extraordinary affinity with the southern style. The little detached shrine in the courtyard of the Indra Sabhâ, and the gateway shown in the above woodcut (No. 274), are as essentially Dravidian in style as the Kailâs itself, and, like many of the details of these caves, so nearly identical that

they cannot possibly be very distant in date. May we, therefore, assume from this that the Chalukyan kingdom of Bâdâmi, in the 7th century of our era, and the Râshtrakûta of Mâlkhed, which follow in the 8th to 10th century, extended from Elûrâ on the north to the Tungâbhadrâ and Krishnâ on the south, and that all these rock-cut examples, with the temple at Aihole (Woodcut No. 181), were excavated or erected under the auspices of these two dynasties!

Both the caves named above are of two storeys with a number of smaller halls attached, and belonged to the Digambara division. From this circumstance and the appearance of Gommata along with Pârswanâth in a number of the shrines—as we find these at Bâdâmi—and that the only inscriptions are in Kanarese, we are led to infer that the excavators were from the south and brought the Dravidian style with them In the right of the court is a large statue of an elephant, and on the left was a fine monolithic stambha 31 ft. 6 in. in height including the Chaumukh figure crowning it. (Woodcut No 275) It fell over about thirty-two years ago.

275. Monolithic Stambha in the court of the Indra Sabhâ
Scale 10 ft to 1 in

Near the ridge above these caves is a colossal image of Pârswanâth, inscribed as having been carved so late as A.D. 1235. And to the east of the other caves is a curious unfinished temple—an imitation on a small scale of the Brahmanical Kailâs The sikhara is low and unfinished, and the work was probably suddenly left in this state.[1] During a partial excavation thirty years ago some loose images were found dated in 1247.

Reverting to the remark as to the origin of these caves, it may be assumed that the theory represents the facts of the case more nearly than any hitherto brought forward. The Chalukyas and Râshtrakûtas were situated on the border-line, half-way between the north and the south, and they, or their subjects, seemed to have practised the styles of architecture belonging to those two divisions indiscriminately—it might almost be said alternately—and we consequently find them mixed up here and at Dhamnâr in a manner that is most puzzling.

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[1] 'Cave Temples,' pp. 495f. and plates 86-92.

CHAPTER III.

JAINA STRUCTURAL TEMPLES.

CONTENTS.

THE temples distinctively Jaina in the Dhârwâr districts are not now numerous, yet there are sufficient remains at Belgaum, Pattadakal, Aihole,[1] and at Annîgeri, Dambal, Lakkundi, and other places, to prove that Jainism was at one time very influential. Those at Pattadakal and Aihole have been briefly noticed above (vol i., pp. 319, 356). It has been supposed that it was probably owing to a succession of able Digambara Jaina teachers, in this Kanarese country, during the 8th and 9th centuries, and who were favoured by the Râshtrakûta kings of Mâlkhed, that Buddhism waned in these districts, and finally disappeared. Respecting the temples, we learn that those at Annîgeri—probably erected in the 10th century—with others in Mysore, were burnt by Râjendradeva Cholâ about the middle of the 11th century, and were restored by a local governor about 1070.

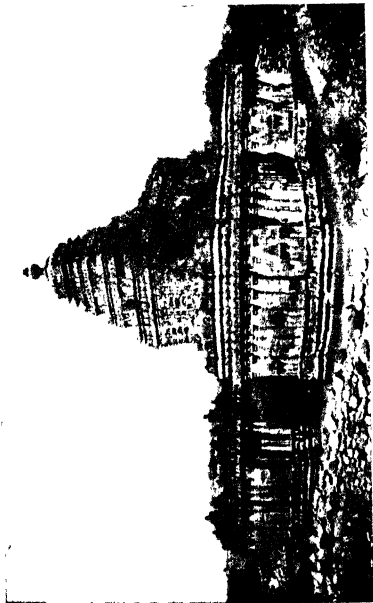
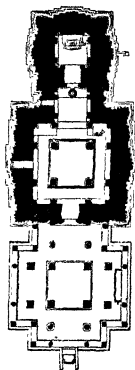
One of the most entire of the Jaina Temples is at Lakkundi, a village about 7 miles east-south-east from Gadag, in Dhârwâr district.[2] From the plan, Woodcut No. 276, it will be seen that it is not large. Though somewhat severe for a Chalukyan temple, it is exceedingly well proportioned. The *sikhara*, as seen in the photograph, Plate XIX., is entire and presents the appearance of a Dravidian work, and the head of the

[1] 'Archæological Survey of Western India: Belgaum and Kaladgi,' pp. 1-5, 12-13, 25-26, 35 and 37, where descriptions and plans of the temples at these places are given.

[2] In 1885 it was noted that all the temples here were being rapidly destroyed by trees on their roofs, and by the materials being carried off for building purposes; and in the end of 1897 the statement was repeated in the 'Revised Lists of Antiquarian Remains in Bombay Presidency.' The Jaina temple has since been re-occupied; the others are now being looked after by the Archæological Survey.

PLATE XIX

Old Jaina Temple at Lakkundi

[To face page 23 Vol II.

276. Lakkundi Jaina Temple.
Scale 25 ft. to 1 in.
(From Plan by Mr H. Cousens.)

walls is treated in a way suggesting direct descent from the Mâmallapuram pagodas. To provide an upper shrine, which is a feature in most of the larger Jaina temples, the first storey of the tower had to be made a distinct feature, and with a projecting front or entrance. This temple has an outer open hall or mandapa, having extensions on each side, with an inner hall about 20½ ft. square inside, and a door on the south side as well as the entrance from the open mandap. It is difficult from a photograph alone to fix its age, but probably it belongs to the earlier half or middle of the 10th century.

PÂLITÂNÂ.

The grouping together of their temples into what may be called "Cities of Temples" is a peculiarity which the Jains have practised to a greater extent than the followers of any other religion in India. The Buddhists grouped their stûpas and vihâras near and around sacred spots, as at Sânchî, Mânikyâla, or in Peshâwar, and elsewhere; but they were scattered, and each was supposed to have a special meaning, or to mark some sacred spot. The Hindûs also grouped their temples, as at Bhuvaneswar or Benares, in great numbers together; but in all cases, so far as we know, because these were the centres of a population who believed in the gods to whom the temples were dedicated, and wanted them for the purposes of their worship. Neither of these religions, however, possess such a group of temples, for instance, as that at Satrunjaya, or Pâlitânâ—as it is usually called from the neighbouring town, in Gujarât, about 35 miles from Goghâ and Bhaunagar, on its eastern coast (Woodcut No. 277).

It is sacred to Rishabhanâth, the first of the twenty-four Jaina Tîrthankaras, and covers the two summits of the Satrunjaya hill, each about 360 yards long, with the depression between them. They are grouped in separate enclosures called Tûks, surrounded by high battlemented walls, each having at least one principal temple with varying numbers of smaller ones

around it. Nominally there are nine Tûks, but more correctly

277. The Sacred Hill of Satrunjaya, near Palitânâ—looking south-west.

eleven, and the number of temples and small shrines number

over five hundred.[1] The number of images of the Tîrthankaras in these temples is very great, and is constantly being augmented; in 1889 the number of separate images counted was 6,449 exclusive of smaller ones on slabs. A few watchmen only remain during the night, at the gateways of the Tûks. The priests come up every morning and perform the daily services, and a few attendants keep the place clean, which they do with the most assiduous attention, or feed the sacred pigeons which are the sole denizens of the spot; but there are no human habitations, properly so called, within the walls. The pilgrim or the stranger ascends in the morning, and returns when he has performed his devotions or satisfied his curiosity. He must not eat or drink, or at least must not cook food, on the sacred hill, and he must not sleep there. It is a city of the gods, and meant for them only, and not intended for the use of mortals.

Jaina temples and shrines are, of course, to be found in cities, and where there are a sufficient number of votaries to support a temple, as in other religions; but, beyond this, the Jains seem, almost more than any sect, to have realised the idea that to build a temple, and to place images in it, was in itself a highly meritorious act, whilst they also share in the merits of its use by their co-religionists. Building a temple is with them a prayer in stone, which they conceive to be eminently duteous and likely to secure them benefits both here and hereafter.

It is in consequence of the Jains believing to a greater extent than the other Indian sects in the efficacy of temple-building as a means of salvation, that their architectural performances bear so much larger a proportion to their numbers than those of other religions It may also be owing to the fact that nine out of ten, or ninety-nine in a hundred, of the Jaina temples are the gifts of single wealthy individuals of the middle classes, that these buildings generally are small and deficient in that grandeur of proportion that marks the buildings undertaken by royal command or belonging to important organised communities It may, however, be also owing to this that their buildings are more elaborately finished than those of more national importance When a wealthy individual of the class who build these temples desires to spend his money on such an object, he is much more likely to feel pleasure

[1] The official inventory, kept in the Bhandar or treasury, gave the number of shrines in 1868 as five hundred and thirteen A translation of this document was given in the 'Lists of Antiquarian Remains in the Bombay Presidency,' etc. (1885), pp 188, 193-213; but in the 2nd edition (1897) its editor has employed a different arrangement of the temples

in elaborate detail and exquisite finish than on great purity or grandeur of conception.

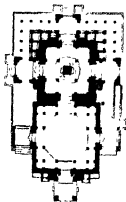
All these peculiarities are found in a more marked degree at Pâlitânâ than at almost any other known place, and, fortunately for the student of the style, extending over a considerable period of time. Some of the temples may be as old as the 11th century, but the Moslim invaders of 14th and 15th centuries made sad havoc of all the older shrines, and we have only fragments of a few of them.[1] In the latter half of the 16th century, however, the Jains obtained tolerance and security, and forthwith began to rebuild their old fanes. From 1500 they are spread pretty evenly over all the intervening period down to the present date. But the largest number and some of the most important were erected within the last seventy years, or within the memory of living men. Fortunately, too, these modern examples by no means disgrace the age in which they are built Their sculptures are inferior, and some of their details are deficient in meaning and expression; but, on the whole, they are equal, or nearly so, to the average examples of earlier ages. It is this that makes Satrunjaya one of the most interesting places that can be named for the philosophical student of architectural art, inasmuch as he can there see the various processes by which cathedrals were produced in the Middle Ages, carried on on a larger scale than almost anywhere else, and in a more natural manner. It is by watching the methods still followed in designing buildings in that remote locality that we become aware how it is that the uncultivated Hindû can rise in architecture to a degree of originality and perfection which has not been attained in Europe since the Middle Ages, but which might easily be recovered by following the same processes.

Among the Satrunjaya temples there is every variety of form and structure, and a monograph on this group, fully illustrated, would be of great architectural, antiquarian, and mythological interest[2] The chief temple is that dedicated to Mulanâyak Srî Âdîswar or Rishabhanâth, near the west end of the Tûk occupying the southern ridge. It is described in an inscription at the entrance as "the seventh restoration' of the temple, carried out in 1530 by Karmasimha, minister to Ratnasimha of Chitor. This "restoration" apparently consisted

[1] The Dhundiya or Lumpâka sect (founded in 1451), refuse to worship images, nor allow them or pictures in their Upâsrayas or places of worship, though they revere the Jinas.—'Oriental Christian Spectator,' 1835, p. 295. They are blamed for causing destruction among the Satrunjaya temples in a feud between them and the Tapagachha Jains

[2] The Satrunjaya temples were surveyed by Mr. Cousens some years ago; but the results are not yet published.

in the rebuilding of an old temple dating from about A.D. 960, a new colossal image, and the building of the gateway in which is the shrine of Pundarîka.[1] The great temple is an imposing two storeyed building with a lofty spire, and with its base surrounded by many small shrines. Within, besides the great marble image of Rishabha, there are literally hundreds of others of all sizes;[2] and, as at Rânpur and elsewhere, there are miniature Muhammadan qiblas set up outside as a protection against Moslim iconoclasts. The area in front of this is flanked by two considerable temples on each side—that on the north-east being an elegant two-storeyed temple of the peculiar Jaina form known as a Chaumukh or four-faced temple. This one has, in the central hall, a quadruple image of Sântinâth—the 16th Jina or Tîrthankara · the images are placed so as to appear as one block, a similar figure facing the four entrances.

Round the great temple are others of many sorts: some containing samosaranas[3] or Chaumukhs, as they are termed; others "pâdukâ" or footprints of Âdîswar, and one of the latter shrines, erected in marble by Karmasâh or Karmasimha in 1530, is under a Râyana tree,[4] the scion of that under which Rishabha is said to have attained moksha or deliverance.

278 Plan of Chaumukh Temple at Satrunjaya (From a Plan by the Editor) Scale 50 ft to 1 in

The largest temple in the Kharatara-vasî Tuk, which occupies much of the north ridge, is a Chaumukh temple of Âdinâth, erected in 1618, by Setthi Devarâj, a banker of Ahmadâbâd and his family—of whom his sons Somajî and Dûpajî were Sanghapatis or leaders of the great pilgrimage at its consecration. It is of two storeys, and has a well-proportioned sikhara, 96 ft. in height, and as shown in the plan (Woodcut No 278) consists of a mandap on the east 31 ft. 2 in. square with twelve pillars forming an inner square on which rests the dome 21 ft. 6 in. across, and the shrine beyond it, is 23 ft. square with entries on all sides. In the centre of this is the great quadruple image of Âdinâth,

[1] 'Epigraphia Indica,' vol. ii. p 35. Pundarika was the chief of Rishabha's disciples, and has a shrine at the entrance of this Tîrthankar's temples.

[2] Among those in the shrine on the upper floor are images of the favourite Srî or Mahâlakshmî, and of Gautama-svâmi, and in other temples are images also of Ganesa, Sarasvatî and other Hindû divinities.

[3] Gujarâtî—Samosan; p. 34 note.

[4] The Mimusops hexandria of Roxburgh; Hemachandra and others specify the Vata or Banyan as Rishabha's Bo-tree.

placed on a marble throne about 11 ft. square with pillars at the corners. The west half of the shrine is surrounded by a verandah, the pillars of which are very richly carved, having on their capitals musicians and dancing figures. The upper storey has elegant projecting balcony windows, and is reached by a stair on the north side of the temple. At the principal entrance are two very small shrines—on the right of Gaumukh Yaksha, and on the left of Chakresvarî Yakshinî — the two spirits supposed to attend this Tîrthankara.

A type of temple, unique in its arrangement, of which there are two examples here, may be noted. In the small enclosure called the Nandîsvara-dvîpa Tûk, on the south side of the northern ridge is the first of these. It was erected by the Nagar Seth of Ahmadâbâd in 1840, and as the plan (Woodcut No. 279) shows, it is a square of about 32 ft. with verandahs about 5 ft. wide attached to each side. The floor is divided by twelve piers into nine smaller squares, and the domes of the roof are supported by arches between these piers. The walls of the verandahs and inner square are of perforated stonework, and it has entrances from all four sides—the principal being on the west. Of the nine smaller squares into which the interior is divided, the five inner forming a cross are occupied by pyramidal *s*ikharas with recesses on their four sides for marble images of the Tîrthankaras. Hence they go under the general name of Chaumukhs. In the central square is the largest of these spires, and in the centre of each of the four arms of the cross is one of secondary size, with smaller ones on each side of it and pairs in contact in the corners. Thus they number fifty-three in all. The five larger Chaumukhs represent mythological mounts: the large central one represents *S*atrunjaya itself. On the west of it, towards the main entrance, is Ashtâpada, on which Âdi*s*war or Rishabha is said to have obtained *moksha* or complete emancipation; in the north square is Meru-*s*ikhara; in the south one *S*ameta-*s*ikhara; and in the east is a Samosan or Samosarana—a term we shall meet with

279. Plan of Nandîsvara-dvîpa Temple at *S*atrunjaya
Scale 25 ft. to 1 in

again. The temple is thus a shrine of "High Places." The other temple—almost a copy of it—was erected in the Vimalavasî Tûk, some thirty-five years later

The Motisâh Tuk, which occupies the east end of the depression between the ridges of the summit, measures about 230 ft. by 224 ft. surrounded by a lofty wall with round towers at the corners. It appears on the front part of the photograph, in Woodcut No. 277. This great square, besides the central temple, dedicated to Âdinâth, and measuring over all 81 ft. by 67 ft. 6 in., contains also some fifteen other temples—some of respectable dimensions The whole is surrounded by a *bhamti* or cloister of more than a hundred small shrines along the enclosing walls. This great Tûk was constructed in 1836, at the expense of Setthi Motisâh Amichand, a wealthy banker and merchant of Bombay, and of his family relations[1] In such examples as these we see the work that native craftsmen still execute when left to themselves Unfortunately the exterior of the temple has been painted, in late years, in an exceedingly vulgar style.[2]

GIRNÂR.

The hill of Girnâr, in the south of the Kâthiâwâr peninsula of Gujarât, not far from Junâgadh, is another tîrtha of the Jains, as sacred, but somehow not so fashionable in modern times as that at Pâlitânâ. It wants, consequently, that bewildering magnificence arising from the number and variety of buildings of all ages that crowd that temple city. Besides this, the temples themselves at Girnâr lose much of their apparent size from being perched on the brow of a hill rising 3,500 ft above the level of the sea, composed of granite rocks strewn about in picturesque confusion. The hill is regarded by the Jains as sacred to Neminâth, the 22nd of their Tîrthankaras, and who is represented as the cousin of the Hindû Krishna.

Although we have a 'Girnâr Mâhâtmyam' as a portion of the Satrunjaya Mâhâtmyam,[3] to retail fables and falsify dates, we have at Girnâr inscriptions which prove that in ancient times it must have been a place of great importance. On a rock outside the town at its foot, called *par excellence* Junâgadh—the

[1] 'The Temples of Satrunjaya,' pp 22, 23, and photograph plates 15, and 25-28.

[2] For a more detailed account of Satrunjaya, the reader may refer to 'The Temples of Satrunjaya' (Bombay, 1869), introduction—of which the text was partly reprinted at Ahmadabâd, 1878; and partly in 'Indian Antiquary,' vol. ii. pp. 354-357. The early history and the tenets of the Jains will be found in Bühler's 'Indian Sect of the Jainas' (English translation), London, 1903.

[3] An abridged version of the 'Satrunjaya Mâhâtmyam,' is given in 'Indian Antiquary,' vol xxx. pp. 239-251 and 288-308. The Girnâr or Raivata Mâhâtmyam forms sections 10 to 12 (pp. 288-302) of that work.

Old Fort—Asoka, B.C. 250, carved a copy of his celebrated edicts.[1] On the same rock about A.D. 150, Rudradâman, the Kshatrapa king of Saurâshtra, carved an inscription, in which he boasted of his victories over the Sâtakarni, king of the Dekhan, and recorded his having repaired the bridge built by the Maurya Asoka and restored the Sudarsana lake.[2] The embankment of the lake again burst and carried away the bridge, but was again repaired by Skandagupta, the last of the great Guptas, in the year A.D. 457, and an inscription on the same rock also records this event.[3]

A place where three such kings thought it worth while to record their deeds or proclaim their laws must, one would think, have been an important city or place at that time; but what is so characteristic of India occurs here as elsewhere. Few material remains are found to testify to the fact. Full four centuries of Moslim rule have obliterated most of the traces of antiquity Still in the east of the town is a group of very early caves, but the quarry opened close behind them has probably destroyed numbers of them None of them are large, but they are of primitive forms and the carving quite archaic, whilst a fragment of a Kshatrapa inscription of about A.D. 185 found among them in 1874, indicates that they belonged to the Jains.[4] There is also an excavated hall and cell near the north wall of the town, with two pillars in front, and other two inside that have had richly carved bases and capitals. And in the Uparkot or old citadel a complicated and very interesting rock-excavation was discovered about thirty-five years ago, the most striking feature of which was the extraordinary richness of the carving on the bases and capitals of the pillars in the lower storey; nothing could exceed the elaboration of the carving on the bases of these. There is no trace of distinctively Buddhist symbolism here, and like the others, they were probably of Jaina origin.[5]

At the foot of Mount Girnâr a stûpa was excavated in 1889, but no inscription was found with the relics to indicate whether it was Jaina or early Buddhist.[6] When Hiuen Tsiang visited the province, about A D. 640, he says there were fifty monasteries here, mostly belonging to the Sthavira school of the Mahâyâna teaching; and one monastery he says was on the top of Girnâr with cells and galleries excavated in

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[1] See *ante*, vol. i. p. 56 *note*.

[2] 'Indian Antiquary,' vol. vii. pp. 257ff.; 'Archæological Survey of Western India,' vol. ii. pp. 128-130.

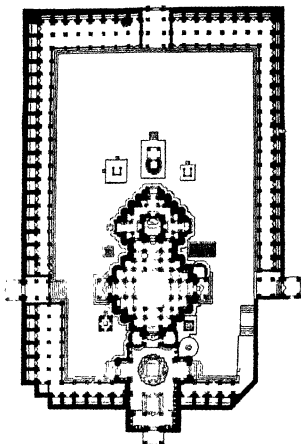
[3] Fleet, 'Gupta Inscriptions,' pp. 56-65; 'Journal Bombay B. Asiat. Soc.,' vol. xviii. pp. 47-55.

[4] 'Archæological Survey of Western India,' vol. ii. pp. 139-141, and plates 16-20.

[5] *Ibid.* pp. 141-144, and plates 21-24.

[6] 'Journal of the Asiatic Society of Bengal,' vol. lx. p. 18.

the rock.[1] It is doubtful if any trace of these is now known to exist.

The principal group of temples at Girnâr, some sixteen in number, is situated on a ledge about 600 ft. below the summit, and still consequently nearly 3,000 ft. above the level of the sea.

280 Temple of Neminath Girnâr (From a Plan by J. Burgess.) Scale 50 ft. to 1 in.

The largest, possibly also the oldest of these, is that of Neminâth (Woodcut No 280) An inscription upon it records that it was repaired in A.D. 1278, and unfortunately a subsequent restorer has laid his heavy hand upon it, so that it is difficult now to realise what its original appearance may have been. This unfortunately is only too often the case with Jaina temples. If a Hindu temple or Muhammadan mosque is once desecrated and

[1] Beal, 'Buddhist Records,' vol. ii. p. 269.

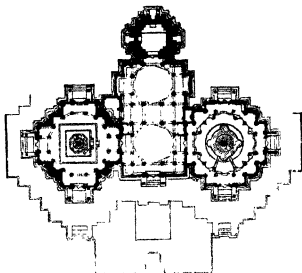
goes to decay, no one ever after repairs it, but its materials are ruthlessly employed to build a new temple or mosque according to the latest fashion of the day. With the Jains it is otherwise. If a man is not rich enough to build a new fane, he may at least be able to restore an old one, and the act with them seems equally meritorious, as it usually is considered to be with us; but the way they set about it generally consists in covering up the whole of the outside with a thick coating of chunam, filling up and hiding all the details, and leaving only the outline. The interior is generally adorned with repeated coats of whitewash, as destructive to artistic effect, but not quite so irreparable.

The plan and the outline are generally, however, left as they were originally erected, and that is probably the case with the temple of Neminâth. It stands in a courtyard measuring 195 ft. by 130 ft. over all externally

Around the courtyard are arranged some seventy cells with a covered and enclosed passage in front of them, and each of these contains a cross-legged seated figure of one of the Tîrthankaras, and generally with a bas-relief or picture representing Yakshas or spirit attendants. But for the fall of the rock there would have been nine or ten more cells, and indeed this repetition of the images of saints, like the multiplication of temples, seems to have been the great aim of the Jaina architects. As we may see in a Hindû temple at Prambânan in Java, there were 236 small temples or cells surrounding the great one, and there, as here, each of them was intended to contain a similar image of one of the objects of worship.

Nearer the entrance than the temple of Neminâth is a triple one erected by the brothers Tejahpâla and Vastupâla,[1] who also erected one of the principal temples on Âbû. From inscriptions upon its walls it seems to have been erected in A.D 1230. The plan is that of three shrines joined to one hall, an arrangement not unfrequently found in the south, but occasionally also in the north, and which is capable of great variety of effect, and of light and shade to a greater extent than plainer forms. In this instance there is an image of Mallinâth, the 19th Tîrthankara, in the central cell, but the lateral rooms each contain a remarkable solid pile of masonry called a Samosarana—that on the north side named Meru or Sumeru—a fabled mountain of the Jains and Hindûs—having a square base (Woodcut No. 281); that on the south, called Samet Sikhara—Pârasnâth, in Bengal—with a nearly circular base. Each rises in four tiers of diminishing width, nearly to the roof, and is surmounted by

[1] The inscriptions ascribe the temple to Vastupâla only, as "the elder brother of Tejahpala."

a small square canopy over the images.[1] From this it would appear that with the Jains, the Mounts Girnâr, *S*atrunjaya, Âbû,

281. Plan of Temple of Vastupâla. (From a Plan by J Burgess.) Scale 50 ft. to 1 in.

etc., were not only holy places, but holy things, and that with them—as with the Syrians—the worship of high places was really a part of their religion

Some of the other temples at Girnâr are interesting from their history, and remarkable from fragments of an ancient date that have survived the too constant repairs; but without illustrating them it would only be tedious to recapitulate their names, or to attempt to describe by words objects which only the practised eye of the Indian antiquary can appreciate. Forty miles south from the hill, however, on the sea-shore, stands the *S*aiva temple of Somnâth, historically perhaps the most celebrated in India, from the campaign which Mahmûd of Ghaznî undertook for its destruction in 1025, and the momentous results that campaign had eventually on the fate of India.

As will be seen from the annexed plan (Woodcut No. 282) the temple itself never could have been remarkable for its

[1] These are the forms in which stûpas are now represented by the Jains — 'Archæological Survey of Western India,' vol. ii p. 170, and plates 33, 34. The Gujarâti *Samosan* and Prâkrit *Samosarana*, Professor Barnett informs me, are represented in Sanskrit by *Samavasarana*—"session" or "assize," and in popular language indicates a "meeting place." — Cunningham, 'Archæological Reports,' vol. xi. pp. 170-171. The *Samavasarana* proper, commemorates the Tîrthankara's first sermon, and is thus analogous to Buddha's "turning the wheel of the law," in the Deer Park at Benares.

dimensions, probably it never exceeded about 130 ft. over all, but the dome of its mandapa, which measures 33 ft. across, is as large as any we know of its age. From the accounts, however, which we have of the siege, it is evident that it was enclosed like the temple of Neminâth (Woodcut No. 280) in a courtyard, and that may have been of surpassing magnificence. Though very similar in plan, it is nearly twice the dimensions of that of Neminâth, and if its court was proportionately large, it may really have justified all that has been said regarding its splendour. From what fragments of sculptured decorations remain, they, too, must have been of great beauty, quite equal to anything we know of this class, or of their age. It has been questioned, however, whether what we now see are fragments of the temple attacked by Mahmûd, and consequently whether they belong to the 10th or even the 9th century, or whether they may be due to a restoration which was effected in the 12th. The temple was dedicated to Somesvara—the moon-lord—a name of Siva, who, as Ibn Asîr states, was represented by a lingam[1]. As the story is now told, after Mahmûd's departure it was restored by Bhimadeva of Anhilwâra Pattan, who reigned 1021-1073, and adorned by Siddharâja, 1093-1143, and lastly completed, if not rebuilt, by Kumârapâla in 1168. Generally it is thought, and almost certainly quite correctly, that what we now see belongs to the last-named king, who is credited with a complete restoration of it, and a state visit to celebrate its consecration. Though a Brahmanical temple, it illustrates the style employed by the Jains in Gujarât in the 12th century. The interior of the walls, too, show that they are largely constructed of materials from an earlier fane.

282 Plan of Temple at Somnâth. (From a Plan by J. Burgess.) Scale 50 ft. to 1 in.

[1] Some of the Muhammadan historians represent the idol as having a head with eyes, arms, and a belly. And after describing the destruction of the great idol, Ferishta goes on to say, "There were in the temple some thousands of small images, wrought in gold and silver, of various shapes and dimensions.' Brigg's 'Ferishta,' vol. i. pp. 72, 74. We must remember, however, that Ferishta lived five and a half centuries after the sack of Somnâth. Ibn Asîr's account is the best.—Sir H. Elliot's 'History of India,' vol. ii. pp. 470ff.

MOUNT ÂBÛ.

It is hardly to be wondered at that Mount Âbû, anciently Arbuda, was early fixed upon by the Hindûs and Jains as one of their sacred spots. Rising from the desert as abruptly as an island from the ocean, it presents on almost every side steep and rugged scarps some 4,000 ft. high, and the summit can best be approached by ravines cut into its sides. When the summit is reached, it opens out into one of the loveliest valleys imaginable, about 6 miles long by 2 or 3 miles at the widest, cut up everywhere by granite rocks of the most fantastic shapes, and the spaces between them covered with trees and luxuriant vegetation. The little Nakhi Talâo, or Pearl Lake, is one of the loveliest gems of its class in all India, and a mile and a half from it, at Dilwâra, the Jains selected a site for their Tîrtha, or sacred place of rendezvous. It cannot, however, be said that it has been a favourite place of worship in recent times Its distance and inaccessibility were probably the causes of this, and it consequently cannot rival either Satrunjaya or Girnâr in the extent of its buildings; but during the age of Jaina supremacy it was adorned with several temples, two of which are unrivalled for certain qualities by any temples in India. They are built wholly of white marble, though no quarries of that material, except of inferior quality, are known to exist within 20 or 30 miles of the spot, and to transport and carry it up the hill to the site of these temples must have added immensely to the expense of the undertaking.[1]

The more modern of the two is usually ascribed to the same brothers, Tejahpâla and Vastupâla, whose names are associated with the triple temple at Girnâr (Woodcut No. 281): the inscriptions, however, ascribe the erection and endowment to Tejahpâla alone, in memory of his brother from whom it is also known as Lûniga's Vasati or temple. This, we learn from the inscription, was consecrated in 1230 A.D., and for minute delicacy of carving and beauty of detail stands almost unrivalled even in the land of patient and lavish labour. It is dedicated to Neminâth, the 22nd Tîrthankara.

The other, built by Vimala, a minister or governor under Bhîmadeva, in the year A.D. 1031,[2] is simpler and bolder,

[1] It is supposed the material must all have been brought from Járiwâv in the Bhâkar district to the south-east of Âbû, near the shrine of Ambâ Bhawânî. How so much material and in such large blocks could have been carried up the mountain is difficult to conceive.

[2] In an inscription recording a repair of the temples in Samvat 1378, after "they had been damaged by Mlechchhas" (Moslims), it is stated that Vimala, by the blessing of Ambâ, built the temple of Âdinâtha in Samvat, 1088 (A.D. 1031).—'Asiatic Researches,' vol. xvi. p. 312; 'Epigraphia Indica,' vol. ix. pp. 148f.

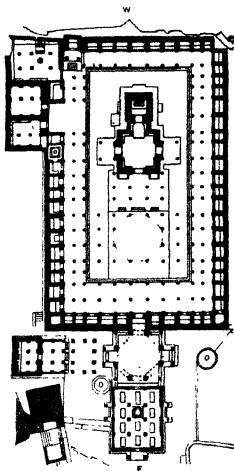
though still as elaborate as good taste would allow in any purely architectural object. Being one of the oldest as well as one of the most complete examples of a Jaina temple, its peculiarities form a convenient introduction to the style, and among other things serve to illustrate how complete and perfect it had already become when we first meet with it in India.

The annexed plan (Woodcut No. 283) will explain the general arrangements of the temple of Vimala, which, as will be observed, are similar to some we have already met, though of course varying considerably in extent and detail. The entrance is through a domed portico, facing which is a square building supported by six pillars, and containing ten statues of elephants, each a single block of white marble, about 4 ft. high. On each of them was seated a figure on a rich *hauda* behind the driver.[1] These represented Vimala and his family in procession to the temple; but the figures have been destroyed by Moslim zealots, and an equestrian statue of Vimala has been placed in the doorway, made of stucco and painted in a style not deserving notice. Behind it, in the centre, is a Samosaran of three tiers as usual.

W

E

283 Temple of Vimala, Mount Âbû.
(From a Plan by Mr. H. Cousens.)
Scale 50 ft. to 1 in.

The principal object here, as elsewhere, is a cell lighted

[1] The names of nine of the riders are carved on their seats, six dated in A.D. 1149 and three in 1180.

only from the door, containing a cross-legged seated figure of the Jina to whom the temple is dedicated, in this instance Rishabhanâth or Âdinâth. The cell, as in all other examples, terminates upwards in a *sikhara*, or pyramidal roof,[1] which in these Âbû temples, however, are too low to be properly designated spires. To this, as in almost all instances, is attached a mandapa or closed hall, and in front of this a portico, generally of considerable extent, and in most examples surmounted by a dome resting on eight pillars, which forms indeed the distinguishing characteristic of the style, as well as its most beautiful feature. In this example the portico is composed of forty-eight free-standing pillars, which is by no means an unusual number, and the whole is enclosed in an oblong courtyard, 128 ft by 75 ft inside, surrounded by a double colonnade of smaller pillars, forming porticos to a range of cells, as usual fifty-two in number,[2] with some extra chapels at the south-west corner, these enclose it on all sides, exactly as they do in Buddhist vihâras. In this case, however, each cell, instead of being the residence of a monk, is occupied by one of those cross-legged images of Jinas which belong alike to Buddhism and Jainism, and between which the untaught find it difficult to distinguish. In the south-west corner of the court, on a slightly higher level, is a small early temple of Ambâ[3] which is somewhat out of alignment with the rest, and has apparently fixed the limit of the enclosure, there is also a suspicion that the central shrine, built of stone—not marble—may be of earlier date than the 11th century.[4]

In other religions there may be a great number of separate similar chapels attached to one building, but in no other would fifty-two be found, as in this example, or that surrounding the temple of Nemināth at Girnar (Woodcut No. 280), each containing an image of a Tirthankara, and all so nearly identical as to be almost undistinguishable. With the Jains it seems to be thought the most important point that the Jinas or saints are honoured by the number of their images, and that each principal image should be provided with a separate abode. In other examples, however, it is only a separate niche. On some Jaina monuments the images of the Tîrthankaras are repeated

[1] See *ante*, vol i p. 322

[2] 'Archæological Survey of Western India,' vol ix pp. 99, 100.

[3] Ambâ is a name of Durga, and also of the Yakshinî or familiar devî of Neminâtha, the 22nd Tirthankara, to whom Tejahpâla's temple is dedicated. A large black image of Nemināth in an adjoining shrine might suggest that this temple was first dedicated to that Jina Ambâ figures largely in Jaina mythology; and her Hindû temple at Ambâji, 15 miles north-east from Dântâ, is visited by crowds of Jaina pilgrims.

[4] Many of the short inscriptions on the cell doors and the images in them are dated a century later than the erection by Vimala.

hundreds, it may almost be said a thousand times over, all the images alike, and the niches arranged in rows beside and above each other, like pigeon-holes in a dovecote.

284. Temple of Vimala, Mount Âbû. (From a Sketch by the Author.)

Externally the temple is perfectly plain, and there is nothing to indicate the magnificence within, except the spire of the cell peeping over the plain wall, though even this is the most insignificant part of the erection. The external porch, too, is insignificant, so that one is totally unprepared for the splendour of the interior.

The woodcut (No. 284) will give some idea of the arrangement of the porch, but it would require a far more extensive and elaborate drawing to convey a correct impression of its extreme beauty of detail and diversity of design. The great pillars, as will be seen, are of the same height as those of the smaller external porticos; and like them they finish with the usual bracket-capital of the East; upon this an upper dwarf column or attic, if it may be so called, is placed to give them additional height, and on these upper columns rest the great beams or architraves which support the dome, the springing of which is shown in woodcut No. 284 (*ante*, p. 39); as, however, the bearing is long, the weight is relieved, at least in appearance, by the curious angular strut or truss of white marble, mentioned above (vol. i. p. 315), which, springing from the lower capital, seems to support the middle of the beam.

That this last feature is derived from some wooden or carpentry original, can scarcely be doubted; but in what manner it was first introduced into masonry construction is unknown: probably it might be discovered by a careful examination of the buildings in this neighbourhood.[1] It continues as an architectural feature down to the present day, but gradually becoming more and more attenuated, till at last, except in one example at Delhi, to be mentioned hereafter, it loses all its constructive significance as a supporting member, and dwindles into a mere ornament.

The marble dome in this temple is of great beauty from its very rich carving, which may be judged of to some extent from the photograph, Plate XX. It differs in minor details from that in Tejahpâla's temple (Woodcut No. 286), though the general design is the same, and the description of the latter, given below, will apply to this. In the roofs of the corridors of this temple also there is a series of carvings of most complicated ornamental designs that are quite unrivalled anywhere else.

In Tejahpâla's temple, which stands to the north-east of the preceding, the procession of the founder's family occupies the place of the cells in the east end of the enclosure behind the shrine.[2] This corridor is separated from the court by a pierced screen of open tracery: a little rude and heavy, it must be confessed, but still a fine work of its kind. Behind it, in the centre, is an elaborately carved Chaumukh, with five

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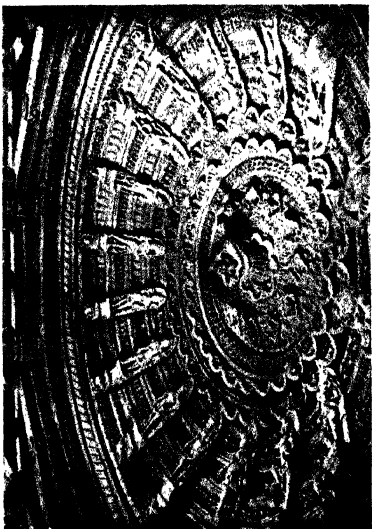
[1] In the temple of Vâdîpura Pârswanâth, at Anahilawada, built in 1594, we have an example of a temple of which the whole interior (illustrated in 'Archæological Survey of Western India,' vol. ix. p. 49 and plates 4, 20 and 21) is carved in wood. Jaina temples with carved wood façades and interiors are generally met with in the larger cities.

[2] 'Architecture and Scenery in Gujarat and Rajputana,' p. 16.

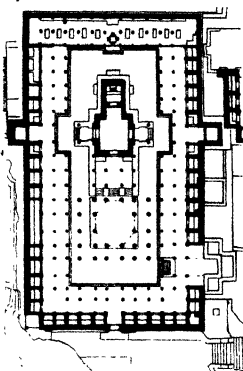
PLATE XX.

Dome in Vimala's Temple, Mount Abu.

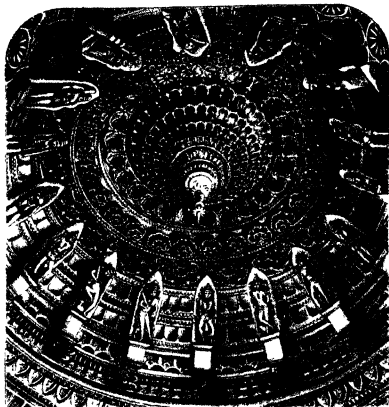
[To face page 40 Vol II

elephants on each side of very excellent workmanship, and with rich trappings sculptured with the most exquisite precision. The Moslim has, however, carried off or destroyed their riders.[1]

The temple is entered on the south-west, from the court between it and Vimala's by a stair at the south of the enclosure. The plan is in imitation of the older temple, from which it differs but little in size, measuring over all about 155 ft. by 92 ft. (Woodcut No. 285). The pillars supporting the porch are somewhat taller and of eight different types, as may be noted in the photograph (Plate XX). On the other hand, in Vimala's the general style of the 11th century is adhered to throughout; the dome of the portico is slightly less in diameter than in the former, but quite rivalling it in elaboration of detail and beauty of design.

285. Temple of Tejahpâla, Mount Âbû. (From a Plan by Mr H. Cousens.) Scale 50 ft. to 1 in.

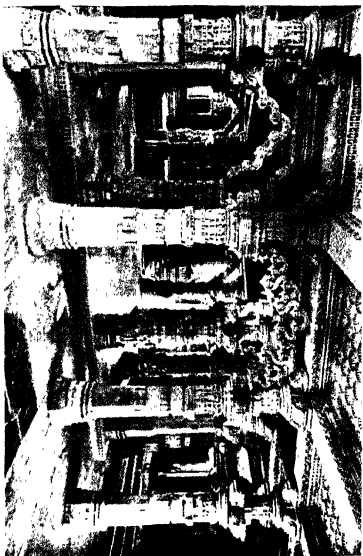
On the octagon formed by the massive architraves across the heads of the pillars rests the dome (Woodcut No. 286). In both temples a single block in the angles of the octagon suffices to introduce the circle. Above the second row of ornaments sixteen bracket pedestals are introduced supporting statues, and in the centre is a pendant of the most exquisite beauty; the whole is in white marble, and finished with a delicacy of detail and appropriateness of ornament which is probably unsurpassed by any similar example to be found anywhere else. Those introduced by the Gothic architects in Henry VII.'s chapel at Westminster, or at Oxford, are coarse and clumsy in comparison. It is difficult, by any

[1] 'Picturesque Illustrations of Indian Architecture,' p. 40; Tod's 'Travels in Western India,' pp. 106-109, 111.

means of illustration, to convey a correct idea of the extreme beauty and delicacy of these pendant ornaments, but the illustrations on Plate XXI. and woodcut No. 286 from photographs will explain their form, even if it cannot reflect their

286. Pendant in Dome of Tejahpala's Temple at Âbû. (From a Photograph.)

beauty. In each of them there are placed, on brackets round the circumference, sixteen four-armed female figures called Vidyâdevîs — goddesses of knowledge.[1] In the roofs of the corridors, also, the coffers are carved in the richest and most varied patterns.

Over the doors of the cells or kulikâs are forty-six inscriptions recording their construction and grants for the worship of the

[1] Buhler, 'Indian Sect of the Jainas,' English translation, p. 65. For other analogous examples, see 'Archæological Survey of Western India,' vol. ix. p. 49, and plates 20, 21; p. 85 and plate 58; p. 104 and plates 84, 86. The engraver of the above woodcut (No. 286) has failed to realise that these figures have four arms: otherwise it represents the roof quite accurately.

PLATE XXI

Interior of Tejahpala's Temple at Mount Abu

[To face page 42, Vol. II.

different Tîrthankaras they enshrine, chiefly by Tejahpâla and his relatives, and dated between A.D. 1230 and 1236.[1]

The other two temples here are—that of Âdinâtha, close to Tejahpâla's on the south-east, of which the *bhamti* or surrounding enclosure of cells has been only partly completed; the other is a great Chaumukh temple of Âdinâth, built in the middle of the 15th century—three storeys in height with

267. Pillars at Chandrâvati. (From Tod's 'Western India.')

open domed porticos on the four sides—that on the west being the principal, and having seventy-six pillars.

As before hinted, there never seems to have been any important town on Mount Âbû. It was too inaccessible for that purpose; but a few miles to the southward on the plain are the remains of an extensive city, called Chandrâvati,[2] where

[1] 'Epigraphia Indica,' vol. viii. pp. 200-229.

[2] Forbes 'Râs Mâlâ,' vol. i. p. 274; Tod, 'Travels in Western India,' p. 134 When the railway from Ahmadâbâd into Râjputâna was making, the contractors destroyed and carted away, for culverts and permanent way, the marble temples that remained at Chandrâvati.—'Archæological Survey of Western India,' vol. ix. p. 98.

there are—or rather were, till about twenty-five years ago—extensive remains of Jaina and Hindû temples of the same age and style as those on the mount, some of them probably more modern, but still all of the best age. The place, however, was destroyed at the time of the Muhammadan conquest in the middle of the 14th century, and has since remained wholly deserted. It has in consequence been used as a quarry by the neighbouring towns and villages, so that none of its buildings now remain. The fragment, however, preserved in Colonel Tod's work and shown in Woodcut No. 287, but now destroyed, may serve to illustrate the style in which they were erected, but no two pillars were exactly alike, it would have required hundreds to represent their infinite variety of detail.

PÂRASNÂTH.

The highest point of the Bengal range of hills, south of Râjmahal, has characteristically been appropriated by the Jains as one of their most favourite Tîrthas. They name it Pârasnâth and Samet *S*ikhar, and no less than nineteen of their twenty-four Tîrthankaras are said to have died there, or rather "attained to Moksha"—blessedness—among others Pâr*s*wanâth, the last but one, and he consequently gave to the hill the name it now bears.

Unfortunately, no photographer has yet visited the hill, nor any one who was able to discriminate between what was new and what old Such accounts, however, as we have are by no means encouraging, and do not lead us to expect any very remarkable architectural remains. The temples on the hill are numerous, but they seem all modern, or at least to have been so completely repaired in modern times that their more ancient features cannot now be discerned. Something may also be due to the fact that Bengal has never been essentially a Jaina country. The Pâla dynasty of Bengal seem to have remained Buddhist nearly to the Muhammadan conquest (A.D. 1203), when they seem suddenly to have dropped that religion and plunged headlong into the Vaishnava and *S*aiva superstitions. Whether from this, or from some other cause we cannot now explain, Jainism does not seem to have taken root in Bengal. At the time that it, with Buddhism, took its rise in the 5th century B.C. Bihâr was the intellectual and the political centre of India, and Buddhism long held its sway in the country of its birth. Before, however, Jainism became politically important, the centre of power had gravitated towards the West, and Jainism does not seem to have attained any great importance in the country where it first appeared. Were it not for this, there

seems little doubt but that Pârasnâth would have been more important in their eyes than Pâlitânâ or Girnâr; but it is not so, and it consequently occupies only a very slight corner in an architectural history of India.

Besides the effect the Jains sought to obtain by grouping their temples on hill-tops, the love of the picturesque, which they seem to have cultivated more than any other sect in India, led them to seek it in an exactly opposite direction. Some of their favourite Tîrthas are found in deep and secluded valleys. One at Mukhtagiri, for instance, near Gawilgarh, is situated in a deep well-wooded valley, traversed by a stream that breaks in its course into numerous picturesque waterfalls.

Another example of this love of the picturesque is found at Rânpur, near Sâdari, in Godwâr district of the Jodhpur territory. In a remote valley piercing the western flank of the Ârâvalli or Âdâbalâ hills, there is a small group of temples, notperhapssopicturesquely situated as those at Mukhtagiri, but of more interest architecturally, and situated in a spot evidently selected for its natural beauties.

288. Plan of Temple at Rânpur near Sâdari. (From a Plan by Mr. H. Cousens.) Scale 100 ft to 1 in

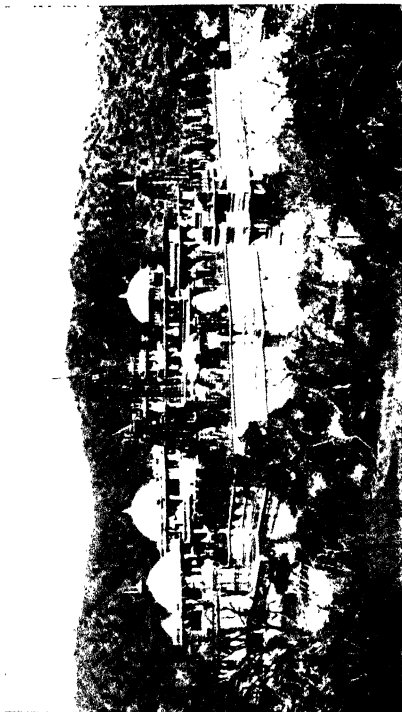
The principal temple here was erected during the reign of Kumbhakarna or Kumbha Rânâ of Mewâr.[1] He seems to have been a liberal patron of the Jains, and during his long and prosperous reign filled his country with beautiful buildings, both civil and ecclesiastical. Amongst others was built this temple of Rânpur

[1] An inscription states that the temple was built by a Jaina named Dharanâka in A.D. 1439.—'Bhaunagar Inscriptions,' pp. 114f.

in 1440, situated in a lonely and deserted glen, running into the western slope of the hills, below Kumbha's favourite fort of Kumalmer. Notwithstanding former neglect, it is still nearly perfect, and is probably the most complicated and extensive Jaina temple in India, and the most complete for the ritual of the sect.

It is raised on a lofty basement and from the plan (Woodcut No. 288) it will be perceived that it is nearly a square, 198 ft. by 205 ft, exclusive of the projections on each face. In the

289. View in the Temple at Ranpur (From a Sketch by the Author.)

centre stands the great shrine, open on the four sides and occupied by a quadruple image in white marble of Âdinâth or Rishabha, the first Tîrthankara, the temple being one of the Chaumukh class. In the upper storey is a similar shrine, approached by doors opening from the terraced roofs of the building. Near the four angles of the court are four smaller shrines, and around them, or on each side of them, are twenty domes, supported by about 420 columns; four of these domes or mandaps—the central ones of each group—are three storeys in height, and tower over the others; and one—facing the

Ranpur Chaumukh Temple General View of from S E

To face page 47 Vol II

principal entrance—is double, having a second dome over the inner, supported by the very unusual number of sixteen columns, and is 34 ft. in diameter, the others being only 21½ ft. Light is admitted to the building by four uncovered courts[1] at the sides of these domes, and forming the corners of a rectangle round the shrine 105 ft. from west to east by 95 ft. across. Around this are twelve domes—three on each side—with the four smaller shrines already mentioned in the corners, and the whole is surrounded by a *bhamti* or range of cells for images, each of which has a pyramidal roof of its own.

The internal effect of this forest of columns may be gathered from the view (Woodcut No. 289) taken across one of its courts; but it is impossible that any view can reproduce the endless variety of perspective and the play of light and shade which results from the disposition of the pillars, and of the domes, and from the mode in which the light is introduced. A wonderful effect also results from the number of cells, most of them containing images of the Tîrthankaras, which everywhere meet the view. Besides the twelve under the larger sikharas there are eighty-six cell shrines of varied form and size surrounding the interior, many of them connected by inside passages, and all their façades more or less adorned with sculpture.

The general external effect of the Rânpur temple may be judged of by the photograph, Plate XXII.; owing to its lofty basement, and the greater elevation of the principal domes, it gives a more favourable impression of a Jaina temple than is usually the case—the greatest defect of these buildings as architectural designs being the want of ornament on their exterior faces; this, however, is more generally the case in the older than in the more modern temples.

The immense number of parts in the building, and their general smallness, prevents its laying claim to anything like architectural grandeur; but their variety, their beauty of detail —no two pillars in the whole building being exactly alike—the grace with which they are arranged, the tasteful admixture of domes of different heights with flat ceilings, and the mode in which the light is introduced, combine to produce an excellent effect. Indeed, I know of no other building in India, of the same class, that leaves so pleasing an impression, or affords so

[1] In the north-west court grows the Râjâdana or Râyana tree, sacred to Âdinâth, and a necessary adjunct of his temple, whilst beneath it is a slab carved with his Pâdukâ or footprints, representing the spiritual authority of the Tirthankara. The two west courts are about 20 ft. by 37½ ft. and the two on the east about 26 ft. square, but with the inner corner of each cut off by a corner of the central platform.

many hints for the graceful arrangement of columns in an interior.[1]

Besides its merits of design, its dimensions are by no means to be despised; it covers altogether about 48,000 sq. ft., or nearly as much as one of our ordinary mediæval cathedrals, and, taking the basement into account, is nearly of equal bulk; while in amount of labour and of sculptural decorations it far surpasses any.

Another temple here is of marble, covered outside with sculpture, and contains a black stone image of Pârswanâth. It is probably of about the same age as the larger one.

GWÂLIAR.

The rock at Gwâliar is, and must always have been, one of the most remarkable high places in Central India, and seems, as such, early to have been appropriated by the Jains. Its position and its scarps, however, led to its being fortified, and, as one of the strongest places in India, it was attacked and taken by storm by Altamsh, the first Moslim Emperor of Delhi, in A.D. 1232; and from that time till the fall of the Mughal empire it was held by the Muhammadans, or by Hindû kings subject to their suzerainty Under these circumstances, we should hardly expect to find any extensive ancient Hindû remains in the place. The most striking part of the Jaina remains at Gwâliar are a series of caves or rock-cut sculptures that are excavated in the rock on all sides, and amount, when taken together, to hardly less than a hundred, great and small. They are, however, very unlike the chaityas or vihâras of the Buddhists, still less do they resemble the Jaina and Brahmanical caves, already mentioned or hereafter. Most of them are mere niches to contain statues, though some are cells that may have been originally intended for residences One curious fact regarding them is, that, according to inscriptions, they were all excavated within the short period of about thirty-three years, between A.D. 1441 and 1474. Some of the figures are of colossal size; one, for instance, is 57 ft high, which is greater than any other in the north of India, though in the south there are some which equal or compare with it, and, as free-standing figures, are expressive and more difficult to execute.[2]

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[1] 'Picturesque Illustrations of Ancient Architecture in Hindustan,' p 42, and 'Architecture and Scenery in Gujarat and Rajputana,' pp. 19-22, and plates

[2] For illustrations of Gwâliar see Dr. G Le Bon, 'Les Monuments de l Inde,' pp 93-98, and figs. 85-98; Sir L. Griffin, 'Famous Monuments of Central India,' pp. 60-80, and plates 39-46; and Workman's 'Through Town and Jungle,' pp 180ff

KHAJURÂHO.

Khajurâho, the ancient capital of the Chandellas, is situated 44 miles east from Naugong, about 145 miles W.S W. from Allahâbâd, and about 150 miles south-east from Gwâliar. It is now a wretched deserted place, but has in and around it a group of some thirty temples, which are the most beautiful in form as well as the most elegant in detail of any of the temples now standing in India.[1]

So far as can be made out from inscriptions,[2] as well as from their style, it appears that all these temples, with two unimportant exceptions, were executed nearly simultaneously and almost within the limits of the 11th century; and, what is also curious, they seem to be nearly equally divided between the three religions. Roughly speaking, they are located in three groups, two consisting of Hindû temples—*S*aiva and Vaishnava intermixed—and one exclusively of Jaina temples. In each group there are one or more greater than the rest, and round some of them a few subordinate shrines are placed; but most of them are independent temples. Among the *S*aiva temples the principal is the Kandarya Mahâdeva, of which a representation will be given further on; in the Vaishnava class it is the Chaturbhuja;[3] and in the Jaina the Pârswanâth: all three so like one another that it requires some familiarity with the photographs to distinguish the temple of one religion from those of the others. It looks as if all had been built by one prince, and by some arrangement that neither sect should surpass or be jealous of the other. Either from this, or from some cause we do not quite understand, we lose here those peculiarities we usually assign to Jaina temples of this age. The vimâna or *s*ikhara is more important than the porch. There are no courtyards with circumambient cells; no prominent domes, nor, in fact, anything that distinguishes Jaina from Hindû architecture. If not under the sway of a single prince, they must have been erected in an age of extreme toleration, and when any rivalry that existed must only have been among the architects in trying who could produce the most beautiful

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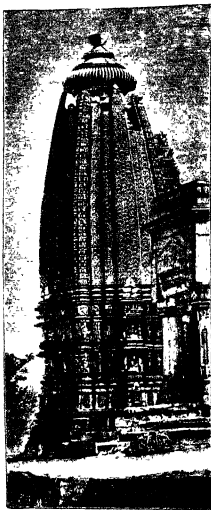
[1] In the first half of last century they were much more numerous—many having been removed for building material.

[2] The inscriptions are translated in 'Epigraphia Indica,' vol i. pp. 121-162

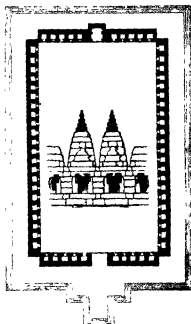
[3] Sometimes called the Râmachandra or the Lakshmanji temple. A sketch map of the Khajurâho temples is given in Cunningham's 'Survey Reports,' vol. ii. plate 95. The temple he calls Jinanâtha's (No. 25), is that now known as Pârswanâth's, whilst the temple of Âdinâth he calls Pârswanâth's. Plans of the Jinanâtha (Pârswanâth) temple and of the Ganthai are given in 'Survey Reports,' vol. x. plate 8, and 'Journal of Asiatic Society of Bengal,' vol. xlviii. at p 294.

and most exquisitely adorned building. Altogether they may perhaps be more modern than the principal Hindû shrines.

290 Temple of Âdinâth at Khajurâho (From a Photograph.)

The Jaina temples form a fairly compact group to the south-east of the others, and the largest and finest of them is the Pârswanâth temple, which extends to about 62 ft. in length by half that in breadth. It has an outside porch on two advanced pillars with two square engaged ones by the sides of the entrance. Inside, the mandapa, about 22 ft. by 17 ft., has four pillars, with respondent pilasters supporting the domed roof, constructed in the usual way by cusped recesses forming a remarkably beautiful design. Beyond the hall is the shrine, surrounded by a pradakshina passage. The outside walls are ornamented with numerous bands of mouldings and with three rows of statues, as is shown in the photographic view, Plate XVIII. (frontispiece). At the back or west end an outside shrine is attached, projecting about 9 ft. The temple was repaired and re-occupied by the Jains about 1860; but it had been restored and altered at a much earlier date.[1]

[1] An inscription on the door jamb, in characters of the 13th century, seems to be a copy from a grant made in A.D. 955 which may be about the date of the temple. But this doorway, Mr Cousens says, bears a figure of Vishnu on Garuda, and may have been taken from some Hindû temple.

An illustration of one of the great Hindû temples will be given further on, another view of one of the smaller Jaina temples, that of Âdinâth (Woodcut No. 290), will suffice to illustrate the style of art here employed. Its porch either never was added or has been removed and replaced in modern times by a brick abomination with pointed arches. This, however, hardly interferes with the temple itself. There is nothing probably in Hindû architecture that surpasses the richness of its three-storeyed base combined with the extreme elegance of outline and delicate detail of the upper part. The sculptures on this temple, as Mr Cousens remarks, are chiefly *devîs*, and on the *âsana* or seat for the image in the shrine a figure of Garuda is carved, whilst a small loose image of a Jina is placed upon it, and no distinctly Jaina image appears on the walls. All this points to its having been built as a Vaishnava temple and afterwards appropriated by the Jains.[1]

The two exceptional temples above alluded to are, first, one called the Chausath Joginî, or sixty-four female demons It consists merely of a courtyard, measuring 102 ft. by 59½ ft. and surrounded by sixty-four small cells, with one larger in the back wall, each of which is surmounted by a small spire, as shown in the woodcut (No. 291). This is essentially like a Jaina arrangement (see Temple of Neminâth, for instance—Woodcut No. 280, page 32); but there is only a resemblance. We know of at least two other old temples dedicated to these Joginîs. one is at Rânîpur Jhariâl in the Pâtna estate, to the south of Sambhalpur, also with sixty-five cells or recesses,[2] and another at Bherâghât, 12 miles below Jabalpur, with eighty-one recesses for the sixty-four Joginîs and their

291 Chausath Joginî, Khajurâho.
(From a Plan by Gen. Cunningham.)
Scale 50 ft. to 1 in.

[1] Photographs of the Jaina temples are given in Sir L. Griffin's 'Famous Monuments of Central India,' plates 48-51.

[2] At this place there is a very remarkable and numerous series of temples, unsurveyed as yet, among which is a circular Chausath Joginî temple, about 56 ft. outside diameter.—'Indian Antiquary,' vol. vii. p 20; 'Survey Reports,' vol xiii. pp. 132 *et seqq.* and plates 13, 14.

congeners.[1] Both of these are circular enclosures with the shrines ranged round the inside of the walls. The temple itself it is true has gone—if any central structure ever existed—but what we see is probably as old as the 9th century, if not older.[2]

The other exceptional building is one of totally different character, and is as remarkable for its extreme elegance, even at Khajurâho, as the other is for its rudeness. It is called Ghantai, either from the bells sculptured on its pillars, or for some other cause unknown. Unfortunately, it is only a fragment — a skeleton without flesh — a few pillars of a double portico now standing alone without the walls that may once have enclosed them (Woodcut No. 292).

From the form of several letters in an inscription, found near these ruins, General Cunningham was inclined to believe that this temple may belong to the 6th or 7th century of our era, and from finding a Buddhist statue and a short Buddhist inscription near them, he was at first inclined to assign them to that religion Later he made excavations on the site and found some eleven figures apparently Digambara Jaina, and two distinctively Vaishnava Hence he concluded that it must have been a Jaina temple[3] The plan, too, of the building, so far as it can be made out, is unlike anything we know that is Buddhist, but very similar to many that certainly are Jaina.[4]

Be this as it may, these pillars are singularly graceful in their form, and elegant in their details, but they do not belong to the early style to which they were at first ascribed. There are eight of these sandstone shafts, each 14 ft 6 in. in height. These are arranged in two squares about 15 ft. apart, and between the two are some square pillars and a carved doorway, apparently the entrance to the mandap. On its lintel a four-armed goddess is carved, mounted on a Garuda, and a small nude male in each side niche · these could not have been prepared for a Jaina temple. Then the granite pilasters for the walls are of various lengths, several having one or more blocks added above or below to make up the proper heights, and pointing to a reconstruction.[5] If it ever were completed the temple would be in plan almost a copy of that of Pârswanâth noticed above, having a porch on the east and a mandapa 21 ft 6 in wide, with the second group of four carved columns

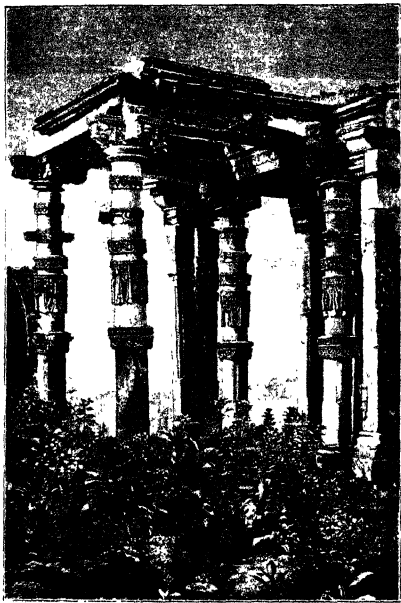
[1] 'Survey Reports,' vol ix, pp 60-74, and plates 12-15 The enclosure is 116 ft. diameter inside

[2] It is built of granite, and its plan and the forms of its sikharas, induce me to believe it to be exceptionally old.

[3] 'Archæological Survey Reports,' vol ii p 431, and vol x p. 16.

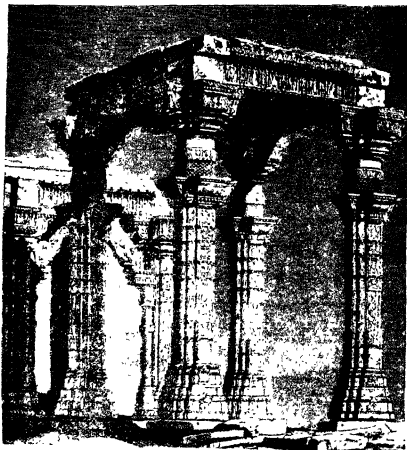
[4] For plans of similar Jaina temples, see 'Report on Belgâm and Kaladgi,' plates 2, 10, and 45. These, however, are more modern than this one

[5] Le Bon, 'Les Monuments de l'Inde,' p. 79, fig 64; 'Journal of the Asiatic Society of Bengal,' vol. xlviii. pt. i., p 294.

supporting its roof, and extending to the two square pilasters

292. The Ghantai, Khajurâho. (From a Photograph.)

now at the west end, which would be on the front of the

shrine. And the shrine itself with the pradakshina would occupy about 17 ft. to the west of these pilasters.

At the south-west corner, near where the shrine would have been, lies a life-sized figure of Âdinâth, and from this, with the Jaina figures excavated by General Cunningham, one of them

293 Temple at Gyaraspur (From a Photograph.)

dated in A.D. 1085, we learn that, late in the 11th century the Jains had the place in possession. But it is also plain that they were reconstructing it of materials from older Hindû structures. And the absence of débris suggests that either the walls and great spire never were constructed or that, at a later date, the entire materials were carefully removed. How long before the 11th century the eight sandstone pillars were first carved

we are left without evidence to determine; but there seems no reason for ascribing them to an earlier period than the commencement of the 10th century, and possibly they may be of even somewhat later date.

There seems very little doubt that more examples of this age and style exist in Rajputana and Central India. At Gyâraspur, 24 miles north-east from Bhilsâ, and 140 miles south-west from this, there is a group of pillars arranged like these and like them deprived of their walls (Woodcut No. 293). In the Mukandwâra pass there is a third example, but of much earlier date.[1] Was it that their walls were of burnt bricks or of small square stones which, being easily removed, were utilised? My impression is, the latter was the case; but be this as it may, these Gyâraspur pillars are possibly also the remains of a Jaina edifice, but of an age considerably more modern than the Ghantai. They can hardly under any circumstances be ascribed to an age anterior to the great revival in the 10th century, and may not improbably belong to the 12th century. In the same town of Gyâraspur is a very grand old temple apparently of about the same age as these pillars. But it has been so ruined and repaired, and almost rebuilt, that it is extremely difficult to say what the form or purpose of the original erection may have been. There is also a toran of great beauty in the village, probably of the 11th century, and in fact throughout this region there are numberless remains which, if scientifically examined, would probably suffice to fill up some of the largest gaps in our history.

At Bhangarh, for instance, in the south of the Alwar territory, there are some very beautiful temples in style resembling the Jaina.[2] One in that neighbourhood photographed by Captain Impey, may belong to the 10th or 11th century, and is as beautiful as any of its class, either at Khajurâho or elsewhere, and near it again is a colossal Jaina image, called Nan Gûngi, some 20 ft. in height, which is apparently of the same age as the temples, and consequently anterior to any of the colossi at Gwâliar or in the south of India.[3] The Jain sect are numerous in Rajputana, and though some of their temples have long been neglected and fallen into decay, some of them, being of the best age and unrestored, are of extreme interest to the investigator of Indian art.

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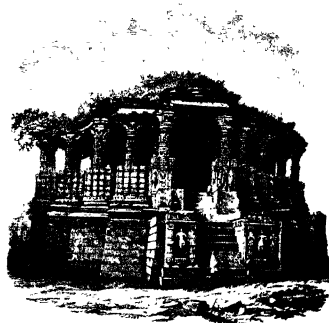
[1] 'Picturesque Illustrations of Indian Architecture,' by the Author, plate 5.

[2] These are probably *Saiva*. At Nilkanth (old Râjor), also in the hills of the Tahla pargana of the same state, are some temples of about the 10th century, of great beauty of detail: probably they too are *Saiva*.

[3] Impey, 'Views in Delhi, Agra, and Rajpootana,' London, 1865, frontispiece and plate 60.

An important group of ancient temples is reported at Osia, a decayed town about 32 miles north of Jodhpur. Among them is a Jaina temple of considerable size, which an inscription indicates as having been founded originally in the latter part of the 8th century, and the Hindû temples may belong to somewhere about the same period. A careful survey of them might be helpful in settling the age of other monuments by supplying fresh links in the chronometric scale.

As before mentioned, the Buddhists, though employing circular roofs, and in all ages building topes with domical forms externally, do not seem to have attempted an internal dome, in stone at least It is a feature of both Hindû and Jaina architecture, and is specially prevalent among the northern Jains, though, why this particular sect should have adopted it, and why they should have persevered in using it through so long a period, are questions we are not yet in a position to answer. It was an essential feature in the architecture of the Moslims before they

294 Porch of Hindu Temple at Amwâ, near Ajantâ
(From a Photograph by Major Gill)

came into India, and they consequently eagerly seized on the domes of Hindûs and Jains when they first arrived there, and afterwards from them worked out that domical style which is one of the most marked characteristics of their art in India.

Yet we must not forget that the Hindûs also have shown that they could, and did frequently employ the dome very successfully. Among examples of their use of it few are more pleasing than the little temple at Amwâ or Amvâr, near Ajantâ (Woodcut No. 294). It is only a fragment. The sanctuary with its spire are gone, only the portico remaining; and its roof externally is so ruined, that its design can with difficulty be made out. Yet it stands so well on its stylobate, and the thirty small columns that support the roof externally are so well proportioned and so artistically arranged, as to leave little to be desired.

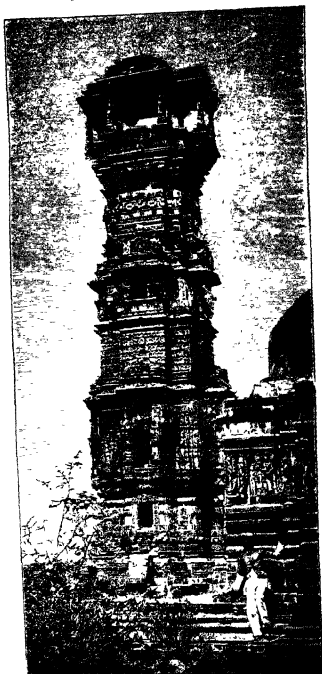
The great feature of the interior is a dome 21 ft. in diameter, supported on twelve richly carved pillars, with eight smaller ones interspersed. Like all Indian domes, it is horizontal in construction, and consequently also in ornamentation, but as that is done here, it is as elegant or more so than the ribbed domes of western art. This one is plain in the centre, having no pendant—which, however, is one of the most marked and pleasing features of such domes, as may be gathered from the example in the temple of Vimala at Mount Âbû (Woodcut No. 284 and Plate XIX.). A larger and perhaps better example might be cited in the case of the great sun-temple at Modherâ in Gujarât, when entire, but only the lower courses of its domes now remain.[1]

One of the most interesting Jaina monuments of the age is the tower, formerly known as *Srî* Allata's,[2] which still adorns the head of Chitor (Woodcut No. 295, next page), and is one probably of a great number of similar monuments that may at one time have existed. From their form, however, they are frail, and trees and human violence so easily overthrow them, that we ought not to wonder that so few remain. This one is a singularly elegant specimen of its class, about 75 ft in height, and adorned with sculpture and mouldings from the base to the summit.[3] It stands on a basement 20 ft. square and 9 ft. high, with a stair on the south side, leading to the doorway, which is 6 ft. 2 in. above the platform. The shaft of the tower is 12 ft. 10 in. square below, and is four storeys high to the open canopy of twelve pillars, the floor of which is 64 ft. 2 in. from the ground. An inscription once existed lying near its base, which is said to have given its date as A.D. 895,[4] though

[1] 'Archæological Survey of Western India,' vol. ix. pp. 75ff. and plates 49, 50

[2] Allata, to whom the erection of this tower was ascribed, ruled between 953 and 972, as we gather from inscriptions, and is the 12th king, mentioned in Tod's Aitpur inscription. — 'Râjasthan,' vol. i. p 802, Madras ed. p 706.

[3] 'Picturesque Illustrations of Ancient Architecture in Hindostan,' by the Author, plate 8, p. 38.

[4] Tod, 'Râjasthan,' vol. ii. p. 763. (Madras ed. p. 699). This would be before the time of Allata. The tower is also locally known as Kaitan Rânî's—but who she was is unknown.

295 Jaina Tower at Chitor. (From a Photograph.)

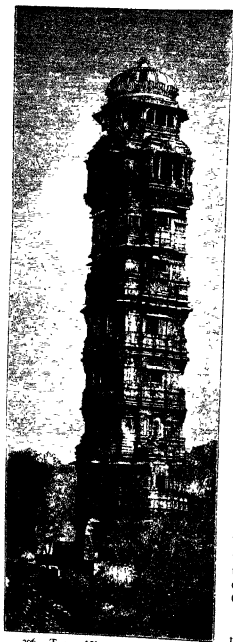
the slab has now been lost. This, however, is much too early a date for the style of the structure; and the discovery of a reference in a manuscript poem of late date ascribing it to Kumârapâla of Gujarât (A.D. 1142-1172), though the style is in no way inconsistent with such a date, as it is unsupported by any nearly contemporary record, is of no historical value.[1] The tower most probably belongs to the 12th century, and, it is said, was dedicated to Âdinâth, the first of the Jaina Tîrthankaras, and nude figures of them are repeated some hundreds of times on the face of the tower, distinguishing it as a Digambara monument, whilst Kumârapâla was a Swetâmbara.[2]

The temple in the foreground is of a more modern date, being put together partly of fragments of older buildings which have disappeared.

Most of the buildings above described belong to the first or great age of Jaina architecture, which extended down to about the year 1300, or perhaps a little after that. There seems then to have been a pause, at least in the north of India—caused probably by the devastating raids of 'Alâu-d-dîn and others into Gujarât and Mâlwâ in the end of the 13th century. But a revival took place in the 15th century, especially under the reign of Kumbha, one of the most powerful of the kings of the Mewâr dynasty, whose favourite capital was Chitor. His reign extended from 1428 to 1468, and it is to him that we owe the other of the two towers that still adorn the brow of Chitor The older one has just been described and illustrated This one was erected to commemorate his victory over Mahmûd Khaljî of Mâlwâ, in the year 1440.[3] It is therefore in Indian phraseology a *Kîrtti* or *Jaya Stambha*, or pillar of victory, like that of Trajan at Rome, but in infinitely better taste as an architectural object than the Roman example, though in sculpture it may be inferior. As will be seen from the next woodcut (No. 296), it stands on a basement, 47 ft. square and 10 ft. high, being nine storeys in height, each of which is distinctly marked on the exterior. A stair in the interior communicates with each, and leads to the two upper storeys, which are open, and more ornamental than those below It is 30 ft. wide at the base, and 122 ft.

[1] This is based on a verse in the 'Sri-Chitrakûtadurga-Mahâvira-prâsâda-prasasti,' a poetical eulogy of a temple of Mahâvira at Chitor, and dates at least three centuries later than Kumârapâla's inscription at Chitor of A.D. 1150.—'Epigraphia Indica,' vol. ii. p. 422.

[2] The upper portion of this tower had become shaken and one of the balconies had fallen; a fourth of it or 20 ft has been taken down, and rebuilt with imitations of the old work to replace lost portions.

[3] Thomas, 'Pathân Kings of Delhi,' p. 354; Erskine, 'Memoirs of Baber,' p. 385; Stanley Lane-Poole, 'Mediæval India,' p. 174. Previously, in 1418, Kumbha had defeated the armies of Gujarât and Mâlwâ.

296 Tower of Victory of Kumbha Ranâ at Chitor (From a Photograph)

in height; the whole being covered with architectural ornaments and sculptures of Hindû divinities to such an extent as to leave no plain parts, while at the same time this mass of decoration is kept so subdued, that it in no way interferes either with the outline or the general effect of the pillar.[1]

The Muhammadans, as we shall afterwards see, adopted the plan of erecting towers of victory to commemorate their exploits, but the most direct imitation was by the Chinese, whose nine-storeyed pagodas are almost literal copies of these Indian towers, translated into their own peculiar mode of expression

Other examples of this middle style of Jaina architecture are to be found at Pâlitânâ, Girnâr, and all the fashionable tîrthas of the Jains, but they have not been described or illustrated to that extent that enables us always to feel sure that what we see really belongs to this date, and may not be a repair or a modification of some pre-existing building. The Chaumukh — or Four-

[1] The dome that now crowns this tower was substituted for an older dome since I sketched it in 1839.

faced—at Pâlitânâ seems certainly to have been erected in its present form in 1618, and is a very grand and beautiful example of the style.[1] The temple, too, of Âdîswar Bhagavan, which is the largest single temple on that hill, seems to have assumed its present form in 1530, though parts of it may be older. At least, it is certain that an older temple stood on the spot, though not with the fabulous antiquity ascribed to it by the priests, and credulously repeated by Colonel Tod.[2]

Though deficient in the extreme grace and elegance that characterised the earlier examples, those of the middle style are bold and vigorous specimens of the art, and still show an originality and an adherence to the traditions of the style, and a freedom from any admixture of foreign elements, which cannot be predicated of the modern style that succeeded it.[3]

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[1] Burgess, 'Satrunjaya,' p 20, and photographs 6-12; the plan of this temple is given *ante*, Woodcut No 278, p. 28.

[2] Tod's 'Travels in Western India,' pp 280, 281.

[3] For Chitor, see 'Architecture and Scenery in Gujarat and Rajputana, pp. 33-35 and plates 19-21, Dr. J. F. Stratton's 'Chitor and the Mewar family,' pp 76-99; 'Archæological Survey of India Reports,' vol. xxiii. pp. 101-124, and plates 20-25; G. Le Bon, 'Les Monuments de l'Inde,' pp. 99f. and figs. 99-104; and Workman, 'Through Town and Jungle in India,' pp 305-311.

CHAPTER IV

MODERN JAINA STYLE.

CONTENTS

Sonâgarh—Jaina Temples at Ahmadâbâd—Delhi—Converted Temples.

THE two places in northern India where the most modern styles of Jaina architecture can probably be studied to most advantage are Sonâgarh, near Datiâ, in Bundelkhand, and Mukhtagiri, near Gawilgarh, 13 miles north-east of Elichpur in Berâr. The former is a granite hill, covered with large loose masses of primitive rock, among which stand from eighty to one hundred brick temples of various shapes and sizes (Woodcut No. 297, p. 63). So far as can be made out, most of these temples date from the 16th and 17th centuries, though a few of them may be older Their original foundation may be earlier, but of that we know nothing, no one having yet enlightened us on the subject, nor explained how and when this hill became a sacred mount.

Like most Hindû buildings of the period, all these temples show very distinctly the immense influence the Muhammadan style of architecture had on that of the native styles at this age Many of the temples here are surmounted by the bulbous dome of the Mughals The true native sikhara rarely appears, but a modified form of it is prevalent, and the openings almost invariably take the form of the Muhammadan foliated pointed arch There is every variety of style and form, and generally each stands on a terrace, and is surmounted by one or more spires. The result is picturesque, but not satisfactory when looked closely into, and generally the details want the purity and elegance that characterised the earlier examples. There is not a tree or sign of vegetation to break the solitary appearance of the surrounding landscape.[1]

Mukhtagiri, instead of being situated on a hill, as the tîrthas of the Jains usually are, is in a deep romantic valley, and the largest group of temples is situated on a platform at the foot of

[1] L. Rousselet, in 'L'Inde des Rajahs,' devotes three plates, pp 396 398, to these temples, also plates 71 and 72 in Sir L. Griffins 'Famous Temples of Central India' On maps this place is sometimes marked as "Sonagir"

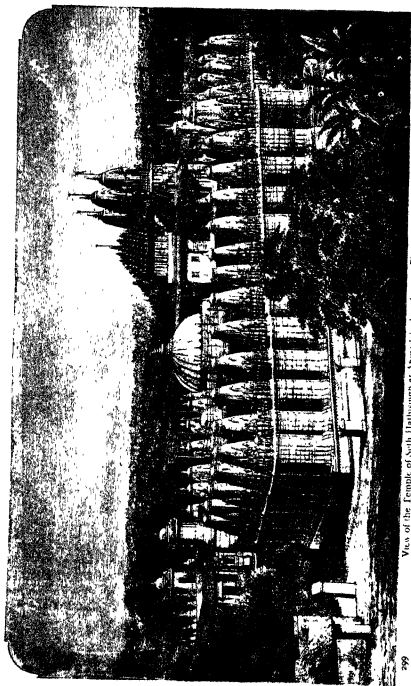
297. View of Jaina Temples, Sonágarh, in Bundelkhand. (From a Photograph.)

a waterfall that thunders down from the height of 60 ft. above them. Like those of Sonâgarh, they are all of the modern domed style, copied from Moslim art, and none of them, so far as can be ascertained from such illustrations as exist, remarkable for beauty of design It would, however, be difficult to find another place in India where architecture is so happily combined with the beauties of nature, and produces so pleasing an impression on the lover of the picturesque, though nearer acquaintance may result in disappointment to the antiquarian student of the style[1]

In remote parts of the empire, and especially in the immediate vicinity of the older shrines, this Muhammadan influence was much less felt than in the places just mentioned. The modern temples, for instance, at Pâlitânâ have domes, it is true, but they are much more directly the lineal descendants of the old Jaina domes than copies of those of the Mughals, and the foliated pointed arch rarely occurs in the walls of that temple city. It requires, indeed, a practised eye to discriminate between what is old and what is new, and without the too manifest inferiority of modern sculpture this would not always be easy even to the most accomplished antiquary.

One example must for the present suffice to show the effect aimed at by this style in recent times, as well as to illustrate how little it has degenerated from its ancient excellence. For, though this woodcut (No. 299) does not prove it, there are photographs which do exhibit the marvellous details of this temple in a manner not to be mistaken. It was erected about sixty years ago by Seth Hathisingh, a rich Jaina merchant, at a cost of about a million rupees, and dedicated to Dharmanâth, the 15th Tîrthankara. In this instance the external porch between two circular towers is of great magnificence and most elaborately ornamented, and leads to an outer court with numerous small shrines all round. In the centre of this is a domed porch of the usual form, with twenty-six pillars (see plan, Woodcut No. 298). This leads to an inner mandap or hall, two storeys in height, and with a roof of a form very fashionable in modern Jaina temples, though by no means

298 Plan of Seth Hathisingh's temple Scale 100 ft to 1 inch

[1] A third notable group of about fifty Jaina temples of modern date exists at Kundalpur in Damoh district, about 64 miles N N.W. from Jabalpur.—'Archæological Survey Reports,' vol. xxi. pp. 166-167.

299 View of the Temple of Seth Hathisingh at Ahmadabad (From a Photograph by Colonel Biggs.)

remarkable for beauty, and difficult to render intelligible without more illustration than it merits. This leads to a triple sanctuary, marked by three sikharas, or spires, externally. Behind this is a smaller court with two groups of seven shrines, one in each angle, with a larger cell in the centre, and two—still more important, at the point of junction between it and the front court. To the eye of a European, unaccustomed to its forms, some of them may seem strange; but its arrangement, at least, will probably be admitted to be very perfect. Each part goes on increasing in dignity as we approach the sanctuary. The exterior expresses the interior more completely than even a Gothic design; and whether looked at from its courts or from the outside, it possesses variety without confusion, and an appropriateness of every part to the purpose for which it was intended [1]

JAINA TEMPLE, DELHI

There is one other example that certainly deserves notice before leaving this branch of the subject, not only on account of its beauty, but its singularity In the preceding pages it has frequently been necessary to remark upon that curious wooden strut by which the Jains sought to relieve the apparent weakness of the longer beams under their domes It occurs at Âbû (Woodcut No 284), at Girnâr, at Udayapur, and many other places we shall have to remark upon in the sequel; everywhere, in fact, where an octagonal dome was used It was also employed by the Hindûs in their torans, and so favourite an ornament did it become that Akbar used it frequently both at Agra and Fathpur Sikrî For centuries it continued without much alteration, but in stone, as for example in the great Baoli at Bundi,[2] we find it a mere ornament, and it is generally used as such It was left, however, for a Jaina architect of the end of the 18th or beginning of last century, in the Muhammadan city of Delhi, to suggest a mode by which what was only conventionally beautiful might really become an appropriate, and really, constructive part of lithic architecture.

As will be observed in the next cut (No 300), the architect has had the happy idea of filling in the whole of the back of the strut with pierced foliaged tracery of the most exquisite device—thus turning what, though elegant, was one of the feeblest parts of Jaina design into a thoroughly constructive stone bracket, one of the most pleasing to be found in Indian architecture, and doing this while preserving all its traditional

[1] For more details see 'Archæological Survey of Western India,' vol viii pp. 87f., and plates 69-71.

[2] 'Picturesque Illustrations of Indian Architecture,' plate 17.

associations. The pillars, too, that support these brackets are of great elegance and constructive propriety, and the whole makes up as elegant a piece of architectural design as any

300. Upper part of Porch of a Jaina Temple at Delhi. (From a Photograph.)

certainly of its age. The weak part of the composition is the dome It is elegant, but too conventional. It no longer has any constructive propriety, but has become a mere ornament. It is not difficult, however, to see why natives should admire and adopt it When the eyes of a nation have been educated by a gradual succession of changes in any architectural object, persevered in through five or six centuries, the taste becomes so accustomed to believe the last fashion to be the best, the change has been so gradual, that people forget how far they are straying from the true path. The European, who has not been so educated, sees only the result, without having followed the steps by which it has been so reached, and is shocked to find how far it has deviated from the form of a true dome of construction, and, finding it also unfamiliar, condemns it. So, indeed, it is with nine-tenths of the ornaments of Hindu architecture Few among us are aware how much education has had to do with their admiration of classical or mediæval art, and few, consequently, perceive how much their condemnation of Indian forms arises from this very want of gradual and appropriate education.

Converted Temples.

Another form in which we can study the architecture of the Jains in the north of India is the courtyards of the early mosques which the Muhammadans erected on their first entry into India So essentially do some of these retain their former features that it might be convenient to describe them here It is doubtful, however, in some instances whether the pillars are—some or all of them—in their original position, or to what extent they have been altered or eked out by the conquerors. Be this as it may, for our present purposes the one fact that is certain is that none of them are now Jaina temples. All are Muhammadan mosques, and it will, therefore, be more logical, as well as more convenient, to group them with the latter rather than with the former class of buildings

Were it not for this, the Arhai din-ka Jhomprâ, at Ajmîr—so called—might be, and has been, described as a Jaina temple:[1] it was probably built on the site and with the materials of Brahmanical ones So might a great part of the mosque at the Qutb, near Delhi That at Kanauj, however, was originally a rearrangement, and has been much altered since I knew it; that at Dhar, near Mandû, is of comparatively recent date; while the Hindû and Jaina pillars, so frequently used at

[1] Tod's 'Rajasthan,' vol i p. 778, and plate facing it

Ahmadâbâd in the fifteenth century, are all imported, and used in positions for which they never were intended.

The astylar temples of the Hindûs were useless to the Moslims except as quarries—a purpose to which they were frequently applied; but the light columnar style of the Jains not only supplied materials more easily adapted to their purposes, but furnished hints of which the Moslim architects were not slow to avail themselves. The architecture of Ahmadâbâd, for instance (A D 1410 to 1572), is derived far more directly from the Jaina than from any style familiar to their co-religionists in any other part of the world. The same may be said of that of Jaunpur, though in the last-named city there is hardly a stone that can be said to be derived direct from any previously existing building

The process by which this conversion of a Jaina temple to a Moslim mosque was effected will be easily understood by referring to the plan of that of Vimala on Mount Âbû (Woodcut No. 283, *supra*, p. 37) By removing the principal cell and its porch from the centre of the court, and building up the entrances of the cells that surround it, a courtyard was at once obtained, surrounded by a double colonnade, which always was the typical form of a mosque. Still one essential feature was wanting—a more important side towards Mecca; this they easily obtained by removing the smaller pillars from that side, and re-erecting in their place the larger pillars of the porch, with their dome in the centre; and, if there were two smaller domes, by placing one of them at each end Thus, without a single new column or carved stone being required, they obtained a mosque which, for convenience and beauty, was unsurpassed by anything they afterwards erected from their own original designs.

CHAPTER V.

JAINA STYLE IN SOUTHERN INDIA.

CONTENTS.

A GOOD deal has been done in the way of photographing the monuments of the Jains in southern India, but few plans of their buildings and fewer architectural details have yet been properly published, so that altogether our knowledge of the subject is somewhat superficial; but it is interesting from its extent, and curious from the unexpected relationship it reveals with other styles The Jains are said to have come to southern India, owing to a famine in the north in the first century, B C[1]

We know from their cave temples that there were Jains at Aihole and Bâdâmi (*supra*, p 18) as early as the end of the 6th, or certainly in the 7th century,[2] but after that there is a pause or break of four or five centuries, when the style reappears in strength at Belgaum and in that neighbourhood in the 11th and 12th centuries[3] In the same manner southern Jains seem to have pressed northward as far as Elûra in the 9th century, taking their Dravidian style with them (*supra*, p 20), but there again we stop, in so far as any direct evidence has been found, till the great outburst of Jaina magnificence at the end of the 10th century, which then seems to have continued in the north till disturbed by the Muhammadan invasion It is by no means clear whether the destruction of their temples, as at Ajmîr and Delhi, may not have led many of the Jains to move south to the Dekhan Of course it existed in Mysore long before, and some of the early kings of the Chalukya and Hoysala Ballâla dynasties were nominally patrons at least of the Jains. All their later buildings, however, so far as we know them, either at Somnathpur, Belûr, or Halebîd, belong to the Brahmanical sects

[1] 'Epigraphia Indica,' vol iv, pp 24, 26, 28, 'Indian Antiquary,' vol xxi p 60

[2] 'Archæological Survey of Western India, vol i pp 25, 26, 37, 38, and plates 36, 37, 48, and 49.

[3] But early in the 8th century Kunkumahâdevi, sister of Vijayâditya, the Chalukya king, built a Jaina temple a Lakshmesvar.

If Buddhism was not prevalent or powerful in the south, there are everywhere traces of the prevalence of Serpent worship in those districts where the Jaina religion now prevails. Sculptured serpents, with many heads and in all their conventional forms, are found everywhere about and in the temples; and Subrahmanya in South Kanara, below the Ghâts, is still a principal seat of Serpent worship in southern India.[1] It is not, unfortunately, easy to say how far Tree-worship was mixed up with the latter faith, but the observances of Serpent-worship are intimately connected with those paid to Trees. Trees perish more easily and quickly than sculptured stones, and when the worship ceases its traces disappear more readily. There are indications that it did prevail here also, but, till purposely enquired after, it is impossible to say to what extent. Enough, however, is known, even now, to justify the assertion that Tree and Serpent worship did exist antecedently in those districts in which Jainism prevailed in the south, as also in the Dravidian countries where the people are devoted to the worship of *S*iva and the members of the Hindû Pantheon[2]

The truth of the matter appears to be, that until plans are made available of their buildings it is idle to speculate about the introduction of Jainism into the south, or its vicissitudes during its existence there. It is a task which, it is to be feared, few are capable of undertaking, and that fewer still are willing to devote the time and labour requisite for its successful accomplishment; but it is worthy of being attempted, for, if successfully carried out, it would add to our scant stores of knowledge one of the most interesting chapters still available for the religious and artistic history of the people of India.

BETTAS.

The first peculiarity that strikes one as distinguishing the Jaina architecture of the south from that of the north, is the division of the southern temples into two classes, called Bastîs and Bettas.[3] The former are temples in the usual acceptance of the word, as understood in the north, and, as there, always containing an image of one of the twenty-four Tîrthankaras, which is the object there worshipped The latter are unknown

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[1] 'Madras Manual of Administration,' Prelim. arts, pp 82, 83. Nâgarkoil in Travankor, is also a chief seat of Snake-worship.

[2] In the Hinduism of Malabar, Phallic and *S*akti-worship and Tree-worship are inextricably mixed up with Snake-worship. —Logan's 'Malabar,' vol 1. p. 183

[3] Bastî, properly "Basadi," is a Jaina monastery or temple; it is the Kannada form of the Sanskrit "Vasati" having the same meaning; Vasahikâ is applied to buildings including monastery and temple. —Bühler, 'Ueber das Leben des Hemachandra,' p. 57. 'Betta,' in Kannada, means a hill.

in the north; and are courtyards usually on a hill or rising ground, open to the sky and containing images, not of a Tîrthankara, but of Gômata or Gômatesvara so called, though he is not known to the Jains in the north. All the images on the rock at Gwâliar are of one or other of the Tîrthankaras, and even the Alwar colossus, Nan Gûngi, can hardly be identified with these southern images.[1] The statues of this Jaina saint are among the most remarkable works of native art in the south of India Three of them are well known, and have long been known to Europeans.[2] That at Sravana Belgola attracted the attention of the late Duke of Wellington when, as Sir A. Wellesley, he commanded a division at the siege of Seringapatam. He, like all those who followed him, was astonished at the amount of labour such a work must have entailed, and puzzled to know whether it was a part of the hill or had been moved to the spot where it now stands. The former is the more probable theory. The hill, called Indragiri, is one mass of granite about 400 ft in height, and probably had a mass or Tor standing on its summit—either a part of the subjacent mass or lying on it This the Jains undertook to fashion into a statue 58 ft. in height, and have achieved it with marvellous success. The task of carving a rock standing in its place the Hindû mind never would have shrunk from, had it even been twice the size; but to move such a mass up the steep smooth side of the hill seems a labour beyond their power, even with all their skill in concentrating masses of men on a single point Whether, however, the rock was found *in situ* or was moved, nothing grander or more imposing exists anywhere out of Egypt, and even there no known statue surpasses it in height, though, it must be confessed, they do excel it in the perfection of art they exhibit.[3]

The image at Kârkala in south Kanara, which is next in size —being 41 ft 5 in in height, and weighing about 80 tons[4]—was

[1] It would appear from the inscriptions on these statues in the south that they represent Bahubalin a son of Kishabhanâtha and brother of Bharata.—'Indian Antiquary,' vol vii p 353, vol. xxx p 248, Rice's 'Inscriptions at Sravana Belgola,' introd pp 25 *et seqq* The first of the three Kevalins or immediate successors of Mahâvîra was also named Gautama.

[2] Three from Kanara were engraved in Moor's 'Hindu Pantheon,' 1810, plates 73 and 74, and two of them in Buchanan's 'Journey through Mysore, etc.' vol iii. pp. 83 and 410; also in 'Indian Antiquary,' vol ii. pp 129 and 353; vol. v p. 57; and 'Epigraphia Indica,' vol. vii pp. 108 *et seqq*, where the inscriptions also are given At Sravana-gutta, near Ilavâla in Mysore district, on a rocky height, is another of these statues now abandoned, about 20 feet in height; there is also one on a hill near Tippûr about 9 ft. high, but only in half relief; and on the Chandragiri hill is an unfinished one about 10 ft. high —Rice, *ut sup.*, 29.

[3] The inscription on the statue ascribes it to Châmunda-râya, minister to the Ganga king Râchamalla II. who ruled about A.D 980.

[4] 'Asiatic Researches,' vol. ix. p. 285; 'Indian Antiquary,' vol. ii. p. 353.

moved certainly to the place where it now stands, and its date luckily is engraved upon it,—A.D. 1432.

The third at Yenûr or Venûr, also in south Kanara, is smaller, about 35 ft. high apparently,[1] and is the latest of the three, having been erected in 1604 (Woodcut No. 301).

301 Colossal Statue at Yenûr (From a Photograph.)

All these three figures belong to the Digambara sect of Jains, being entirely naked; and all possess the peculiarity of having twigs or creeping plants twisted round their arms and legs, in the manner found in the cave-temples, and in having serpents at their feet. In the Jaina cave at Bâdâmi a similar figure has two creeping plants wound round its arms and legs precisely as these twigs are here, and serpents at his feet, while the Dîksha or Bo-tree is relegated to the background.[2] This figure, though possibly not so old as the cave in which it is found—say A.D. 600—is much older than the three great monoliths, but represents the same individual—the ideal ascetic —who stood in meditation until the ant-hills arose at his feet and creeping plants grew round his limbs. This Gômata, Gummata, or Dôrbali has no prominent place in the Swetâmbara pantheon, though Pârswanâth is, with them, occasionally represented in a similar position.[3]

[1] Moor's 'Hindu Pantheon,' plate 73; 'Indian Antiquary,' vol. v. p. 37.

[2] 'Archæological Survey of Western India,' vol. i. p. 25, plate xxxvii.

[3] Nearly all the Tirthankaras are said to have attained bliss (*moksha*) in this position called Kâyotsarga. In the Swetâmbara temples standing figures of Jinas are often placed on each side of the principal image and in Gujarâti are known as "Kâusagiyas," that is—figures in the Kâyotsarga mûdra.

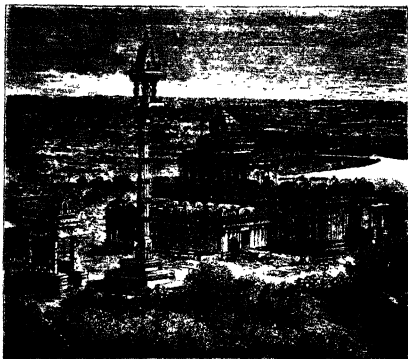
BASTÎS.

The principal group of Bastîs of the Jains, above the Ghâts, is that at *S*ravana Belgola. There are there two hills—the Indragiri, on whose summit the colossal image just described stands, and dominates the plain On a shoulder of the other, called Chandragiri, stand the Bastîs, fifteen in number. As might be expected from their situation, they are all of the Dravidian style of architecture, and are consequently built in gradually receding storeys, each of which is ornamented with small simulated cells, as was explained above, vol. i., p 172, and will be more fully described presently. No instance occurs among them of the curvilinear *s*ikhara or spire, which is universal with the northern Jains, except in the instance of Elûrâ above alluded to

The following woodcut (No 302) representing the Châmunda-râya and *S*âsana bastis on the north side of the Chandragiri hill, with the stambha in front of the Pârswanâthaswâmi bastî, conveys an idea of their general external appearance, which is more ornamental than that of the generality of northern Jaina temples. The outer wall of those in the north is quite plain The southern ones are as frequently ornamented with pilasters and crowned with a row of ornamental cells[1] The Châmunda-râya temple is the most imposing on the hill, both in style and dimensions, and was probably erected about 1135 A.D. Externally it measures about 70 ft in length, exclusive of the porch on the east face, by 36 ft. across Inside is a mandapa, or hall about 28 ft wide by 29½ ft deep. The Dravidian mode of roofing does not accept the dome on an octagon, and here a square of four round columns, 8 ft 4 in between centres, is surrounded by another of twelve octagonal pillars, 19 ft between the centres of the corner pillars Behind the hall is a vestibule about 18 ft wide by 6 ft deep, from which the small shrine is entered—surrounded apparently by walls of unusual thickness to support the vimâna or spire[2] The temple at the south side of this one is dedicated to Âdiswar, but known as the *S*âsana bastî,

[1] The native Government Archæological survey, carried on for many years past, has concerned itself almost exclusively with epigraphy A few plans and detail drawings have been inserted in the 12 quarto volumes, but descriptive details are few and meagre; while, for the drawings, scales are either wanting or too short and uncertain to be depended on, and the lithography so poor that measurements cannot always be trusted as accurate.

[2] The measurements here are taken from the plan in Rice's 'Inscriptions at *S*ravana Belgola,' at Tr p. 149, on the assumption that the scale is 1 : 147·5—possibly intended for 12 ft. to 1 in. The plan shows the walls round the shrine as about 12½ ft. thick.

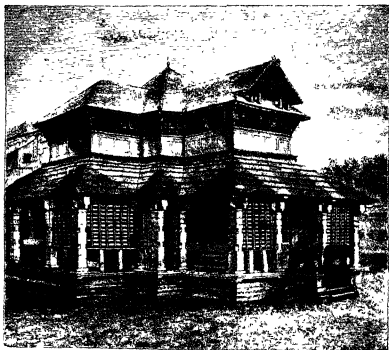
built about the same time, but which has now lost its *s*ikhara—probably destroyed by the Muhammadans.[1] The fine mânastambha, in the foreground, stands in front of the Pârswanâtha-

302 Jaina Bastis at *S*ravana Belgola. (From a Photograph.)

swâmi bastî. The *s*ikhara over the cell is always surmounted by a small dome, as is universally the case with every vimâna in Dravidian architecture, instead of with the amalaka ornament of the northern *s*ikharas.

When we descend the Ghâts into Kanara, or the Tuluva country, we come on a totally different state of matters. Jainism is the religion of the country, and nearly all the temples belong to this sect, but there architecture is neither the Dravidian style of the south, nor that of northern India, and indeed is not known to exist anywhere else in India Proper, but something very like it, possessing similar peculiarities, recurs in Nepâl.

The annexed two views (Woodcuts Nos. 303 and 304) of one of the largest of these temples, found at Mûdabidri, in Kanara, about 20 miles north-east from Mangalor, will give a fair idea

[1] Rice's 'Inscriptions at *S*ravana Belgola,' pp. 35 and 50.

of the general aspect of these temples externally. There are some sixteen bastîs at this place, of which the largest and most notable is the Hosa-bastî, built in A.D. 1430. They are much plainer than Hindû temples usually are. The pillars look like logs of wood with the angles partially chamfered off, so as to make them octagons, and the sloping roofs of the verandahs are so evidently wooden that the style itself cannot be far

303 Jaina Temple at Mûdabidri. (From a Photograph.)

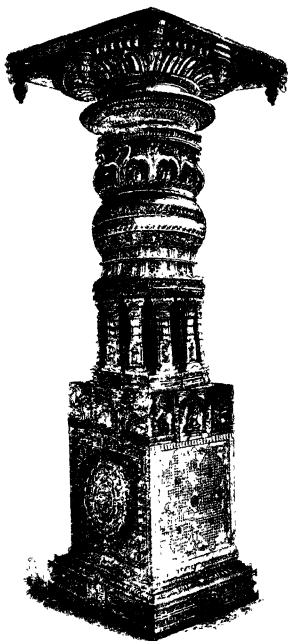
removed from a wooden original. In many places, indeed, below the Ghâts the temples are still wholly constructed in wood without any admixture of stone, and almost all the features of the Mûdabidri temples may be found in wood at the present day. The blinds between the pillars, which are there executed in stone, are found in wood in every city in India, and with very little variation are used by Europeans in Calcutta to a greater extent, perhaps, than they were ever used by the natives.

The feature, however, which presents the greatest resemblance to the northern styles, is the reverse slope of the eaves above the verandah. The same style is found in the old temples at Kârkala and elsewhere in Kanara, but in no other district south

of Nepâl; but when we look for its origin, we at once recognise it in the huts and houses of the district, from the thatched roofs of which it has evidently been copied.

There are sixteen of these Bastîs at Mûdabidri, though the Jain inhabitants of the village are now but few. The interiors of these temples are in marked contrast with the plainness of the exteriors. Nothing can exceed the richness

304 Jaina Temple at Mûdabidri. (From a Photograph.)

or the variety with which they are carved. No two pillars seem alike, and many are ornamented to an extent that may seem almost fantastic. This again seems an indication of their recent descent from a wooden original. Long habit of using stone would have sobered their forms: they are now of great thickness—it may even be said massiveness—and this is just such an excess of strength as a people accustomed to wooden architecture would employ when first called upon to

305. Pillar in a Temple at Mudabidri. (From a Photograph.)

replace in stone supports which in wood would have appeared necessary to carry a heavy stone roof (Woodcut No. 305).

Their plans, as far as can be made out from photographs, are those usual in Jaina temples—spacious, well-lighted porches or mandapas—of which there are three in the larger temples and two in the smaller—leading to a cell in which the images of one or more of the Tîrthankaras is placed, naked of course, as the southern Jains belong to the Digambara sect.[1]

Their age has been determined from inscriptions, and they date from about the beginning of the 12th century downwards—the finest belonging to the 15th century.

Besides the greater temples, there are several varieties of smaller ones which seem peculiar to the style—such, for instance, as the five-pillared shrine at Guruvâyankeri (Woodcut No 306) belonging to a Jaina temple, in front of which it stands Four-pillared pavilions are not uncommon in front of Hindû temples in the south. There is a very famous one, for instance, on the opposite shore of India at Mâmallapuram, but not one, that I know of, with five pillars, or with access to the upper chambers There are three of these upper chambers in this instance—the two lower now closed, but apparently originally open, but to what use they were devoted, or what purpose they were intended to subserve, is by no means clear At the base of the temple are a number of stones bearing images of serpents, probably votive presentations; there are seven or eight of them, and the serpents themselves are some with one, others three, five, or seven heads.

306 Pavilion at Guruvâyankeri. (From a Photograph)

A third feature, even more characteristic of the style, is found in the tombs of the priests, a large number of which are found in

[1] The three mandapas in the larger Bastis are known as the Tîrthankara, Gaddige, and Chitra mandapas; and in the smaller ones, as the Tîrthankara and Namaskara mandapas. — Dr Hultzsch's 'Epigraphical Report for 1900-1901.'

the neighbourhood of Mûdabidri. Three of these are illustrated in the annexed woodcut (No. 307). They vary much in size and magnificence, some being from three to five or seven storeys in height; but they are not, like the storeys of Dravidian temples, ornamented with simulated cells and finishing with domical roofs. The division of each storey is a sloping roof like those of the

307. Tombs of Priests, Mudabidri. (From a Photograph.)

pagodas at Kathmandu, and in China or Tibet. In India they are quite anomalous. In the first place, no tombs of priests are known to exist anywhere else, and their forms, too, are quite unlike any other building now known to be standing in any other part of India.

Though not the grandest, certainly the most elegant and graceful objects to be found in Kanara belonging to the Jaina style of architecture are the stambhas, which are found attached to many of their temples. These are not, however, peculiar to the place or style. They are used sometimes by the Hindûs,

but then frequently as dîpdâns, or lamp-bearing pillars, and in that case have some arrangement for exhibiting light from their summits or round their shafts. With the Jains this does not appear ever to have been the case. Their pillars are the lineal descendants of those of the Buddhists, which bore either emblems or statues—generally the former—or figures of animals; with the Jains and Vaishnavas they as generally bore figures.[1] In the south, however, the Jains have two styles of pillars—the Brahmadeva Stambhas, bearing figures of the god Brahma, and the Mâna-stambhas which are taller and bear a small pavilion on the capital.[2] The example here given of one of the latter class at Guruvâyankeri is a fair average specimen of its class (Woodcut No. 308). The sub-base is square and spreading; the base itself square, changing into an octagon, and thence into a polygonal figure approaching a circle, and above a wide-spreading capital of most elaborate design. To many this may at first sight appear top-heavy, but it is not so in reality. If you erect a pillar at all, it ought to have something to carry. Those we erect are copied from pillars meant to support architraves, and are absurd solecisms when merely supporting statues; we have, however, got accustomed to them, and our eye is offended if anything better proportioned to the work to be done is proposed; but, looking at the breadth of the base and the strength of the shaft, anything less than here exhibited would be found disproportionately small.

308. Stambha at Guruvâyankeri. (From a Photograph.)

On the lower or square part of these stambhas, as well as on

[1] *Ante*, pp vol. i 347, 348, and vol. ii. p. 21.
[2] 'Epigraphia Indica,' vol. viii. p. 123.

the pillars inside the temples at Mûdabidri (Woodcut No. 305) and elsewhere in Kanara, we find that curious interlaced basket-pattern, which is so familiar to us from Irish manuscripts or the ornaments on Irish crosses. As pointed out elsewhere,[1] it is equally common in Armenia, and can be traced up the valley of the Danube into central Europe, but how it got to the west coast of India we do not know, nor have we, so far as I know, any indication on which we can rely for its introduction. There was at all times for the last fifteen centuries a large body of Christians established on this coast who were in connection with Persia and Syria, and are so now. It would be strange, indeed, if it were from them the Jains obtained this device. But stranger things have happened than even this in the history of architecture, and few things can be more interesting when the means exist of tracing any connection that may be detected between them.

If any one wished to select one feature of Indian architecture which would illustrate its rise and progress, as well as its perfection and weakness, there are probably no objects more suited for this purpose than these stambhas, or free-standing pillars. They are found of all ages, from the simple and monolithic lâts which Asoka set up to bear inscriptions or emblems, some 250 years B.C down to the seventeenth or perhaps even eighteenth century of our era During these 2000 years they were erected by the Buddhists and by the Jains, as well as by the other sects in all parts of India, and notwithstanding their inherent frailty, some fifty—it may be a hundred—are known to be still standing. After the first and most simple, erected by Asoka, it may be safely asserted that no two are alike though all bear strongly the impress of the age in which they were erected, and all are thoroughly original and Indian in design.[2]

It may be owing to the styloclastic propensities of the Moslims that these pillars are not found so frequently where they have held sway, as in the remoter parts of India, but, whether from this cause or not, they seem to be more frequent in Kanara and among the southern Jains than in any other part of India. In the north we depend mainly on the rock-cut examples for their forms, but they are so usual there that it seems hardly doubtful they were relatively as frequent in connection with structural examples, though these have generally disappeared.

It has been suggested that there may be some connection between these stambhas and the obelisks of the Egyptians. The

[1] Fergusson, 'History of Ancient and Medieval Architecture,' vol. i. p. 479.

[2] With the Asoka lâts, and the stambhas at Kârlé and Kanheri, may be compared the Saiva and Jaina pillars at Elûrâ, shown in Woodcuts Nos. 202 and 275.

time that elapsed, however, between the erection of the monoliths in the valley of the Nile and those in India seems to render this very doubtful, though they were certainly erected for similar purposes and occupied the same position relatively to the temples. When, however, we look at the vast difference between their designs, it is evident, even assuming a connection, that vast ages must have elapsed before the plain straight-lined forms of the obelisks could have been changed into the complicated and airy forms of the Jaina stambhas. The two are the Alpha and Omega of architectural design—the older, simple and severe, beyond any other examples of purely ornamental objects; the latter, more varied and more highly ornamented than almost any others of their class that can be named.

We are hardly yet in a position to push these speculations to their legitimate issue, and must wait for further information before any satisfactory conclusion can be derived from them; but meanwhile it may be pointed out how curiously characteristic of Indian art it is that this little remote province of Tuluva, or Kanara, should have a style of its own, differing essentially from that found in any other part of the Indian continent, but still having resemblances that suggest affinities with outlying and distant countries, with which one can hardly suspect any connection but for the indications suggested by their architecture.

Such indications have led to the conjecture that some early connection existed between Nepâl and Tibet and Kanara.[1] Yet the affinities in architectural style are explained by their natural and independent derivation in both regions from the humbler forms of the native dwellings that long experience had discovered as best suited to the special natural conditions which prevail in both the areas. That this has not been hitherto made clear is largely due to the circumstance that photographers have directed their attention to important structures only, and have entirely overlooked the humbler native huts and houses that so readily explain the origin of the styles. It is not very difficult to conjecture how early and frequent intercourse may have existed between the Persian Gulf and the western shores of India, and how the relations between these two countries may have been so intimate as to account for the amount of what we now call Armenian forms that we find in the Jaina architecture of southern India, especially in that below the Ghâts. It will require, however, that the Indian branch of the subject should be much more fully and more scientifically investigated than has hitherto been the case before it is worth while to do more than indicate how rich a field lies open to reward the industry of any future explorer.

[1] *Ante*, vol. i. p. 286.

BOOK VI.

NORTHERN OR INDO-ARYAN STYLE.

CHAPTER I

INTRODUCTORY.

CONTENTS

Introductory— Dravidian and Indo-Aryan Temples at Pattadakal—Modern Temple at Benares

OF the three styles into which Hindû architecture naturally divides itself, the northern is found spread over a far larger portion of the country than either of the other two. It wants, however, the compactness and strongly-marked individuality of the Dravidian, and never was developed with that exuberance which characterised the southern style from the 15th to the 18th century In many respects it resembles more the Chalukyan style, the examples being small and elegant, and found dispersed over the face of the country, where wanted, without any apparent massing together in particular spots

Unfortunately, we have no name which would describe the style in its ethnographical and geographical relations without being open to the objection of expressing either too much or too little In this respect the southern style is singularly fortunate Dravidian correctly limits it to people speaking Tâmil, Telugu, or some cognate dialect; and the country where the people speaking those tongues are to be found is generally and correctly known as Drâvida-desa, or country of the Dravidians

The term Chalukyan, applied to the second style, is not so expressive, but it is unobjectionable, as it cannot mislead any one. It is only a conventional term, derived from the principal known dynasty ruling in that country, applied to a style occupying a borderland between the other two, but a

land whose boundaries cannot yet be fixed with precision. Till they are, a conventional name that does not mislead is all that can be hoped for.

If it were allowable to adopt the loose phraseology of philological ethnography, the term Aryan might be employed, as it is the name by which the people practising this style are usually known in India, and it would be particularly convenient here, as it is the correct and direct antithesis of Dravidian. It is evident, however, that any such term, if applied to architecture, ought to be descriptive of some style practised by that people, wherever they settled, all across Europe and Asia, between the shores of the Atlantic and the Bay of Bengal;[1] and it need hardly be said that no such style exists. If used in conjunction with the adjective Indian or Indo-Aryan, it becomes much less objectionable, and has the advantage of limiting its use to the people who are generally known as Aryans in India—in other words, to all those parts of the country where Sanskrit was spoken, or where the people now speak tongues so far derived from Sanskrit as to be distinguishable as offsets of that great family of languages. Its use, in this respect, has the great convenience that any ordinary ethnographical or linguistic map of India is sufficient to describe the boundaries of the style It extends, like the so-called Aryan tongues, from the Himâlayas to the south of the Vindhya mountains. On the east, it is found prevalent in Orissa, and on the west in Mahârâshtra Its southern boundary between these two provinces will only be known when the Nizam's territory is architecturally surveyed.

Another reason why the term Aryan should be applied to the style is, that the country just described, where it prevails, is, and always has been, called Âryâvarta by the natives themselves. They consider it as the land of the pure and just—meaning thereby the Sanskrit-speaking peoples—as contra-distinguished from that of the casteless Dasyus, and other tribes, who, though they may have adopted Brahmanical institutions, could not acquire their purity of race.

The great defect of the term, however, is that the people inhabiting the north of India are not Aryans in any reasonable sense of the term, whatever philologists may say to the contrary.

The Sanskrit-speaking people, who came into India 2000

[1] In 1848 Gen. Cunningham applied the term Aryan to the architecture of Kashmîr, apparently on the strength of a pun ('Journal of the Asiatic Society of Bengal,' vol. xvii. pt. ii., 1848, p. 242). This, however, was limiting a term that belongs to two continents to an insignificant valley in one of them. It was, besides, wholly uncalled for. The term Kashmîri was amply sufficient, and all that was wanted for so strictly local a style.

or 3000 years B.C., could never have been numerically one-half of the inhabitants of the country, except, perhaps, in some such limited district as that between the Satlaj and the Jamnâ; and since the Christian Era no Aryan race has migrated eastward across the Indus, but wave after wave of peoples of Turanian race, under the names of Yavanas, Sakas, Hûnas, Tûrks, or Mongols, have poured into India. This, combined with the ascendancy of the mixed or aboriginal races during the period when Buddhism was the prevailing religion of the country, has so completely washed out Aryanism from northern India during the building ages, that there is probably no community there which could claim one-tenth of pure Aryan blood in its veins, and with nine-tenths of impurity the term is certainly a misnomer. If it were not, we would certainly find some trace of external Aryan affinities in their style; but in fact, no style is so purely local, and, if the term may be used, so aboriginal, as this. The origin of the Buddhist style is obvious and unmistakable; that of the Dravidian and Chalukyan nearly as certain, though not quite so obvious; but the origin of the northern Hindû style remains a mystery, unless, indeed, the solution suggested above (*ante*, vol. i. p. 325) be considered an explanation. It may be so, to some extent, but I confess it is to my mind neither quite satisfactory nor sufficient.

The style was adopted by the Jains, and several examples of the peculiar forms of their vimânas, or sikharas have already been given (Woodcuts Nos. 290, 299, etc.); but it still remains to be ascertained from what original form the curvilinear square tower could have arisen. There is nothing in Buddhist, or any other art, at all like it. It does not seem to have been derived from any wooden form we know, nor from any brick or stone, or tile mode of roofing found anywhere else. I have looked longer, and, perhaps, thought more, on this problem than on any other of its class connected with Indian architecture, but I have no more plausible suggestion to offer than that hinted at above. The real solution will probably be found in the accidental discovery of old temples—so old as to betray in their primitive rudeness the secret we are now guessing at in vain. Meanwhile, we probably may remain sure that it was not an imported form, but an indigenous production, and that it has no connection with the architecture of any other people outside of India.

The view above proposed for the origin of the style derives considerable support from the mode in which the temples are now found distributed. There are perhaps more temples now in Orissa than in all the rest of Hindustan put together. They are very frequent in Mahârâshtra, and, if we admit the Jains

who adopted this style, they are ten times more frequent in Gujarât, Rajputana and the valley of the Narbadâ than in the valley of the Ganges, or in Âryâvarta, properly so called. The first and most obvious explanation of this fact must be that the last-named country has for 600 years been occupied by a Muhammadan empire, and they, hating idolatry and idol temples, have destroyed them wherever they were so absolutely in possession of the country as to be able to do so with impunity. My impression, however, is that it does not correctly represent the whole state of the case. That the Moslims did ruthlessly destroy Jaina and Hindû temples at Ajmîr, Delhi, Kanauj, and elsewhere in northern India, is quite true, but it was, partly at least, because their columns served so admirably for the construction of their mosques. The astylar temples of the followers of *S*iva or Vishnu could have served principally as quarries, and stones that had been previously used in Hindû temples have not been traced to a large extent in Moslim buildings. But admitting that at Delhi or Allahâbâd, or any of their northern capitals, all Hindû buildings have been utilised, this hardly would have been supposed the case at such a provincial capital as Faizâbâd, once Ayodhyâ, the celebrated capital of Da*s*aratha, the father of Râma the hero of the Râmâyana, but where little besides a few pillars in Bâbar's mosque can be discovered that belongs to any ancient building.[1]

The most crucial instance, however, is the city of Benares, so long the sacred city, *par excellence*, of the Hindûs, yet, so far as is known, no vestige of an ancient Hindû temple exists within its present precincts. James Prinsep resided there for ten years, and Major Kittoe, who had a keener eye than even his great master for an architectural form, lived long there as an archæologist and architect. They drew and measured everything, yet neither of them ever thought that they had found anything that was ancient; and it was not till Messrs. Horne and Sherring[2] started the theory that the buildings around the Bakarîyâ Kund were ancient Buddhist or Hindû remains, that any one had discovered any traces of antiquity in that city. But the buildings about the Bakarîyâ Kund were erected by

[1] 'Gazetteer of Oudh' (1877), vol. i. p. 7. Sâlâr Mas'ûd Ghâzi, the nephew of Mahmûd of Ghazni, passed through Ayodhyâ in 1033, and would hardly have failed to display his iconoclastic zeal. Gen. Cunningham attempts to identify the various mounds at this place with those described as existing in Sâketa by the Buddhist Pilgrims.—'Ancient Geography of India,' pp. 401 *et seqq.*; 'Archæological Reports,' vol. i. pp. 293 *et seqq.* The truth of the matter, however, is, that neither Fah Hian nor Hiuen Tsiang were ever near the place. The city they visited, and where the Tooth-brush tree grew, has not been identified.

[2] 'Sacred City of the Hindus,' London, 1868, pp. 271 *et seqq.*; 'Journal of the Asiatic Society of Bengal,' vol. xxxiv pp. 1 *et seqq.*

Muhammadans, and the pillars and roofing-stones, with a few possible exceptions, were carved by them for the purposes for which they were applied. They may have used the stones of deserted monasteries, or other Buddhist or Hindû buildings, in the foundations or on their terraces, or for little detached pavilions; but all the architecture, properly so called, is in a style invented, or at least introduced by the Pathâns, and brought to perfection under Akbar.

That the Moslims destroyed Hindû temples all over the south of Hindustan and in their raids into the Dekhan is certain, but it was not till the time of Aurangzîb that any of their monarchs felt himself sufficiently powerful or was so bigoted as to dare the power and enmity of the Brâhmans of Benares, by erecting a mosque on the site of one of their most sacred temples as an insult and a defiance to the Hindûs. Even then, had such a temple as the great one at Bhuvaneswar existed in Benares, every stone of which, from the ground to the kalas, is covered with carving, it seems remarkable that all these carved stones should be hid away and not one now to be found. But so it appears, still we know historically that there were many temples in the city, and during the pre-Mughal period the city was often sacked, whilst the river courses have changed and probably buried what the Moslim failed to destroy.

The rock at Gwâliar was one of the earliest conquests of the Moslims, and they held it more or less directly for five centuries. They built palaces and mosques within its precincts, yet the most conspicuous objects on the hill are Hindû temples, that were erected before they obtained possession of it. In like manner Chitor was thrice besieged and thrice sacked by the Muhammadans, but numerous buildings there are comparatively intact.

The instances of early temples discovered during the last forty years, however, bears some testimony to the numbers that must have existed all over the country prior to the Musalmân conquests. These are very numerous in the west and south-west of Bengal, where the Aryan element in the population is a minimum. No temples are mentioned in the Vedas or the older Indian writings, and were not required for the simple quasi-domestic rites of their worship; and so long as they remained pure perhaps no temples were built. With the introduction of the Brahmanic ritual they became a necessity. It is to be understood then that though we may use the term Indo-Aryan as the most convenient to describe and define the limits of the northern style, the name it is intended to convey is, that the style arose in a country which they once occupied, and in which they have left a strong impress of their superior mental power

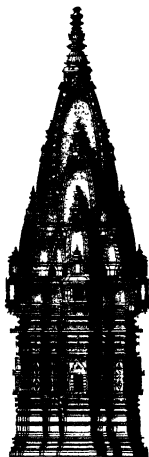
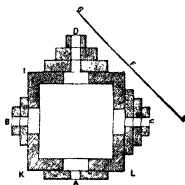
and civilisation, and over which the languages spoken are of Sanskritic descent.

If this reservation is always borne in mind, I know of no term that more conveniently expresses the characteristics of this style, and it is consequently proposed to adopt it in the following pages as the name of the style that prevailed among the Hindûs in northern India, between the Himâlaya and Vindhya mountains, and even much further south, from the 7th century to the present day.

309 Dravidian and Indo-Aryan Temples at Pattadakal (From a Photograph)

The general appearance of the northern temples, and the points of difference between them and those of the south, will be appreciated from the above woodcut (No. 309), representing two very ancient temples, built in juxtaposition at Pattadakal, in Bijâpûr district. That on the left is a complete specimen of Dravidian architecture (*ante*, vol. i. p. 355). There is the same pyramidal form, the same distinction of storeys, the same cells on each, as we find at Mâmallapuram (Woodcut No. 185), at Tanjor (Woodcut No. 213), or at Madurâ (Woodcut No. 195). The right-hand temple—that of Galaganâth, to the north-west of Sangameśvar's — is Indo-Aryan of somewhat later date, and in which, on the contrary, the outline of the pyramid is curvilinear; no trace of division of storeys is observable, no reminiscence of habitations and no pillars or pilasters any-

where. Even in its modern form (Woodcut No. 310), it still retains the same characteristics, and all the lines of the pyramid or sikhara are curvilinear, the base polygonal. No trace of utilitarianism is visible anywhere. If Woodcut No. 310 is compared with that at vol. i. page 339 (Woodcut No. 195), the two styles will be exhibited in their most modern garbs, when, after more than 1000 years' practice, they have receded furthest from the forms in which we first meet them. Yet the Madras temple retains the memory of its storeys and its cells The Bengal example recalls nothing known in civil or domestic architecture.

Neither the pyramid nor the tumulus affords any suggestion as to the origin of the form, nor does the tower, either square or circular; nor does any form of civil or domestic

310 Modern Temple at Benares

311 Diagram Plan of Hindû Temple

architecture It does not seem to be derived from any of these, and, whether we consider it as beautiful or otherwise, it seems certainly to have been invented principally at least for æsthetic purposes, and to have retained that impress from the earliest till the present day.

The plan of a northern temple is always a square internally, and generally the same form is retained in the exterior; but very rarely, if ever, without some addition. In some instances it is only a thin parallel projection, as at A in the diagram

(No. 311). Sometimes it has two such slices added, as at B; but in the oldest examples these are only half the thickness shown here. From this they proceeded to three projections, as at C, the oldest examples being the thinnest. In more modern times the thickness of the projections became equal to their distance from each other, as at D; so that the temple became in plan practically a square, the sides of which were parallel to the diagonal of the original square or to the line E F G. Even, however, when this was the case, the cell always retained its original form and direction, and the entrance and windows kept their position on what had thus practically become the angles of the building. This is the case with the temple at Benares, shown in Woodcut No. 310, and generally also with the Jaina temples, and especially the case with the temple on the Takht-i-Sulaimân in Kashmîr. Although the depth and width of these offsets vary considerably even in the same design, the original square is never lost sight of; the four central angles, as at F, being always larger and more strongly accentuated than the others, and their line is always carried through to the summit of the pyramid.

It will be observed that by this process we have arrived at the same form or plan for a solid building that was attained by the arrangement of pillars described vol. i. page 317. In fact, the two forms were elaborated simultaneously, and were afterwards constantly used together. My impression is, that the pillared arrangement is the oldest, and led to the deepening of the additions to the solid square till the two became identical in plan. Whether this were so or not, it is one of the most distinguishing features of northern Hindû architecture.

In the very centre of India, at Amarakantak, near a place marked Ajmîrgadh on the map, is a sacred tank, from which it is said that the Sôn flows to the north, the Mahânadî to Katak in the Bay of Bengal, and the Narbadâ to the Indian Ocean. All these rivers have their sources in the hill. The spot has always been held sacred, and is surrounded by temples, two or three of them—as far as can be gathered from the imperfect accounts available—of considerable age.[1] On the south and east of this hill extends the great and fertile table-land of Chhattîsgarh. This is now, and has always been, so far as our knowledge extends, one of the principal seats of the native tribes. If that country and the surrounding districts were carefully surveyed, we might find temples, some of which would add very materially to our knowledge of the history of this style.[2]

[1] Mr. Beglar in 'Archæological Survey of India Reports,' vol. vii. pp. 227ff and plates 20, 21; but the account and drawings are very defective.

[2] Conf. Cousens, 'Lists of Antiquarian Remains in the Central Provinces and Berar,' Calcutta, 1897, which indicate some promising remains.

CHAPTER II.

ORISSA

CONTENTS.

History—Temples at Bhuvaneswar, Kanârak, Puri, Jâjpur, and Katak.

CHRONOLOGY

Anantavarman Chodagangadeva	cir.	1078	Narasimhadeva I.	cir.	1238-1264
Kâmârnava	,,	1144 1155	Narasimhadeva II.	,,	1277-1305
Anîyanga Bhîmadeva II	,,	1190 1198	Sulaimân, King of Bengal conquered Orissa	,,	1568

THE two provinces of India, where the Indo-Aryan style can be studied with the greatest advantage, are Dhârwâr on the west, and Orissa on the east coast The former has the advantage of being mixed up with the Dravidian style, so as to admit of synonyms and contrasts that are singularly interesting, both from an ethnological and historical point of view In Orissa, on the contrary, the style is perfectly pure, being unmixed with any other, and thus forms one of the most compact and homogeneous architectural groups in India, and as such of more than usual interest, and it is consequently in this province that the style can be studied to the greatest advantage.

One of the most marked and striking peculiarities of Orissan architecture is the distinct and almost absolute contrast it presents to the style of the Dravidian at the southern end of the peninsula. The curved outline of the towers or vimânas has already been remarked upon, but, besides this, no Orissan towers present the smallest trace of any storeyed or even step-like arrangement, which is so universal further south, and the crowning member is never a dome, nor a reminiscence of one. Even more remarkable than this, is the fact that the Orissan style is almost entirely astylar. In some of the more modern examples, as for instance in the porches added to the temples at Bhuvaneswar and Puri in the 12th and 14th centuries, we do find pillars, but it is probably correct to state that, among the 100 or 150 original shrines at Bhuvaneswar, scarcely a pillar is to be found.[1] This is the more remarkable because, within sight

[1] The Bhogamandapas of the Lingaraja, Jagannâth and Yamesvara temples have each four pillars supporting their roofs; but these mandapas are of later dates than the temples themselves.

of that capital, the caves in the Udayagiri (*ante*, p. 13) are adorned with pillars to such an extent as to show that their forms must have been usual and well known in the province before any of the temples were constructed. When we recollect that no great temple in the south was considered complete without its "hall of 1000 columns," and many besides this had hundreds dispersed about the place, and used for every conceivable purpose, the contrast is more striking, and shows what a complete barrier the Chalukyas interposed between the two races on this side of India, though not on the other. As a rule, every Orissan temple consists of two apartments, similar in plan, as shown in the diagram (Woodcut No. 184). The inner one is generally a cube, surmounted by a tower, here called Barâ-deül, or Dewal, corresponding with the vimâna of the south, and in it the image or images of the gods are enshrined; in front of this is a porch or antarâla, called Jaga-mohan, generally square in plan or approaching it, and surmounted by a pyramidal roof of varying pitch The peculiarities are illustrated in the diagram (Woodcut No 184) just referred to, which purports to be an elevation of the celebrated Black Pagoda at Kanârak. It is only, however, an eye-sketch, and cannot be depended upon for minute detail and correctness, but it is sufficient to explain the meaning of the text. Sometimes one or two more porches (mandapas) were added in front of this one, called the Nâta-mandir or dancing-hall—corresponding to the Sabhâ-mandapa in a Gujarât temple—and the Bhoga-mandir or refectory, but these, in almost every instance, are afterthoughts, and not parts of the original design. Be this as it may, in every instance in Orissa the tower with its porch forms the temple If enclosed in a wall, they are always to be seen outside. There are gateways, it is true, but they are always subordinate, and there are none of those accretions of enclosures and gopurams that form so marked a characteristic of the southern style. There generally are other shrines within the enclosures of the great temples, but they are always kept subordinate, and the temple itself towers over everything to even a greater extent than that at Tanjor (Woodcut No. 213), giving a unity and purpose to the whole design, so frequently wanting in the south.

Other contrasts will come out as we proceed, but, in the meanwhile, few examples bring out more clearly the vast importance of ethnography as applied to architecture. That two peoples, inhabiting practically the same country, and worshipping the same gods under the guidance of the same Brahmanical priesthood, should have adopted and adhered to two such dissimilar styles for their sacred buildings, shows as clearly as anything can well do how much race has to do with these

matters, and how little we can understand the causes of such contrasts, unless we take affinities or differences of race into consideration.

History.

About eighty years ago Mr. Andrew Stirling published an 'Account of Orissa proper or Cuttack,' giving a dynastic list of the rulers from B.C. 3101 to the beginning of last century, with dates and notable events of their reigns.[1] This was drawn up from native records belonging to the temple of Jagannâth at Purî; and, dismissing the early portions as manifestly fabulous, the record, from the accession of Yayâti Kesarî towards the end of the 5th century, was accepted as tolerably trustworthy, and was revised and published with a fuller list of the names by Sir W. W. Hunter in his 'Orissa.'[2] But, like other native histories, it cannot stand examination, and must be discarded as worthless previous to the 12th century, and very inaccurate even for the last four or five centuries. Here, as elsewhere, we can hope for trustworthy historical information only from the steady pursuit of epigraphical research, which as yet has yielded but four or five names of a Somavamsi or Lunar dynasty that ruled before the 12th century; and their inscriptions are unfortunately dated only in regnal years, and must be relegated, on epigraphical grounds, to about the 11th century.[3] We have thus, as yet, but little help from historical sources. It is true that the dates of two of its temples have been approximately ascertained. The great one at Bhuvaneswar is said to have been erected about A.D. 640—but possibly later—and that at Purî between A.D. 1080 and 1140, nearly the first and the last of the series. My impression is that in the later direction it can hardly be extended beyond the year 1260, but within these limits it seems possible to arrange the sequence of all the temples in the province without much difficulty, and to ascertain their dates with some degree of approximate certainty.

With the exception of the great temple of Jagannâth at Purî, the buildings described in this chapter were mostly erected

[1] 'Asiatic Researches,' vol. xv. (1825), pp. 163ff., also 'History of the Râjas of Orissa, from the reign of Râja Yudhistira. Translated from the Vamsâvalî,' in 'Jour. Asiat. Soc. Bengal,' vol. vi. (1837), pp. 756-766.

[2] 'Orissa' (ed. 1872) vol. i. pp. 198f. and vol. ii. pp. 183-191, also in Sewell's 'Lists of Inscriptions and Dynasties of Southern India,' pp. 204-209. An outline of the history of Orissa is given in the new 'Gazetteer of Purî,' chap. ii.

[3] Among four successive rulers, of which we have inscriptions, tentatively placed in the 11th century, the third, Yayâti Mahâ-Sivagupta, may possibly be the Yayâti Kesarî, which the Vamsâvalî makes the founder of the dynasty in 474-526, or five centuries before his probable date.—Dr. J. F. Fleet in 'Epigraphia Indica,' vol. iii. pp. 323-359.

before the commencement of the 12th century, when we find Anantavarman Chodagangadeva (1078-1142) of the Eastern Ganga dynasty recording that he replaced the fallen lord of Orissa in his kingdom.[1] About this period the Ganga-vansa dynasty succeeded, the second of whom was the builder of the great Purî temple—or at least completed it—for its erection is ascribed to his father, Chodaganga, thirty years earlier. They were nominally Saivas, but patronised also the Vaishnavas, whilst the preceding dynasty seem to have been devoted Saivas.

Owing to its remoteness from the seats of Muhammadan power, Orissa almost entirely escaped the ravages which devastated the principal Hindû cities in the earlier and more intolerant age of their power. The first serious invasion of Orissa was only made about 1510 by 'Alâu-d-Dîn Hasain Shâh, King of Bengal, whose army sacked Katak and plundered Purî, but was driven back , and it was not till 1567-1568 that Sulaimân Khân Karârâni, the Afghân Viceroy of Bengal, finally defeated the Orissa king at Jâjpur. Soon after it was annexed by Akbar, and after four more years of contests it became a province of his empire in 1578, after which further outrages were hardly to be feared.

At Jâjpur the Muhammadans had already wreaked their vengeance on all that was Hindû; but elsewhere the monuments were left more nearly intact than any other group in the north of India. Neither at Bhuvaneswar nor at Purî or Kanârak are marked traces of their violence In later times the Orissa remains have suffered from the sordid proceedings of the Public Works Department, which destroyed the fort at Bârbâti and other public buildings, to mend roads or to save some money in erecting a lighthouse at False Point. Further injury has been done by the antiquarian zeal of the officers who removed some of the best statues of the Râjarânî temple,[2] and by the vandals who pulled down the Navagraha sculpture from the Kanârak temple. Lastly, and worst of all, by the Archæological Survey, a few years ago, which caused the interior of the mandap of this famous monument to be completely filled up with stones and sand and so "shut up for ever."[3]

Besides their immunity from the ordinary causes of destruction of Hindû buildings, the Orissa group forms in itself one of the most complete and interesting in all India. The Khajurâho

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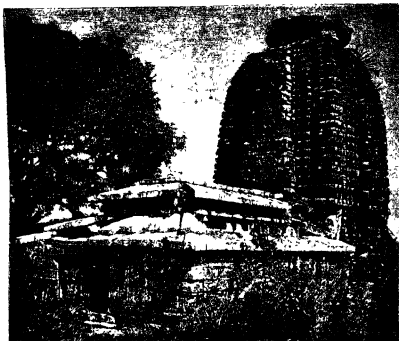
[1] 'Indian Antiquary,' vol. xviii. p. 171; 'Jour. Asiat. Soc. Bengal,' vol. lxxii. pp. 101ff.

[2] Râjendralâl Mitra's 'Antiquities of Orissa,' vol. ii. p. 90.

[3] This was conceived to be the only way of preventing the roof from falling in.—Mr. Marshall's 'Annual Report, 1903-1904,' p. 48.

group is nearly as extensive and magnificent, but they were all erected within the limits of about a century, 950 to 1050,[1] so that little sequence can be traced among them. There are also temples in the Kanarese districts more magnificent than any in Orissa, and extending through a long series of years; but they are scattered over a wide extent of country, and are consequently

312 Temple of Parasurameswar (From a Photograph.)

varied by local peculiarities of style It therefore requires more knowledge and experience to classify them than it does those in this province. Altogether there is not, perhaps, any group which, if properly investigated, would add more to our knowledge of Indian architecture, and give it more precision, than the Bhuvaneswar temples[2]

[1] Cunningham, 'Archæological Survey Reports,' vol ii p 416, *infra*, p. 141

[2] The late Râjendralâl Mitra, who was sent with the expedition organised by the Bengal Government in 1868 to survey the antiquities of Orissa, most unfortunately had no knowledge whatever of architectural surveying or draughtsmanship; nor had he any acquaintance with Indian styles to guide him in determining the periods to which different buildings belonged Even his vaunted acquaintance with epigraphy was superficial and inexact, and the two folio volumes he prepared at public expense, added little, if anything, to our knowledge.—'Indian Antiquary,' vol ix. pp. 113f. and 142f.; Fergusson's 'Archæology in India,' pp. 48ff.

The oldest temple in the town of Bhuvaneswar is probably that called Parasurâmeswar (Woodcut No. 312), which, from the termination of the name, as well as the Linga in the cella, and subjects portrayed in the three principal niches of the tower, mark it as a Saiva shrine. It may belong to the 7th century, though it may be as late as the 8th. Its style is certainly different from the other early temples here, and more like what we find at other places outside the province. It is not large, being only 20 ft. square[1] at its base; but its sculptures are cut with a delicacy seldom surpassed, and there is an appropriateness about the ornaments greater than is seen in most of the temples.

The temple itself is apparently 42 ft. in height, and from the summit to the base it is covered with sculptures of the most elaborate character,[2] but still without detracting from the simplicity and vigour of its outline.

If I am correct in assigning so early a date to the tower of this temple, it is evident that the porch must be a subsequent addition, because it fits badly to the tower. It may, however, be that if this is really the oldest temple of its class in Orissa, its design may be copied from a foreign example, and borrowed, with all its peculiarities, from a style practised elsewhere. Be that as it may, it is interesting as showing the mode by which light was sometimes introduced into the porches of these temples between the ends of the beams of the stone roof. As the sloping roofing-stones project considerably beyond the openings, a subdued light is introduced, without either the direct rays of the sun, or the rain being able to penetrate.[3]

The temple of Mukteswar (Woodcut No. 313) is very similar in general design to that of Parasurâmeswar, but even richer and more varied in detail, and its porch partakes more of the regular Orissan type. It has no pillars internally, and the roof externally exhibits at least the germ of what we find in the porches of the great temple at Bhuvaneswar and the Black Pagoda. Its dimensions are somewhat less than those of the last temple described, but in its class it may be considered the gem of Orissan architecture.[4]

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[1] This dimension is from Bâbu Rájendralâl's 'Orissa Antiquities,' vol. i p. 41, but I don't like it. [Judging from a photograph—the estimated height being about 43 ft.—this dimension seems to be at least 27 ft.]

[2] G. Le Bon, 'Les Monuments de l'Inde,' p. 70 and figs 49, 50.

[3] This temple has of late been in the hands of the official, and we learn that it "has been thoroughly restored; the whole roof of the mandapa was dismantled and rebuilt"—'Archæological Survey Annual Report, 1902-03,' p. 46.

[4] This temple is surrounded by "a number of small shrines, and close to it also stands the temple of Siddhesvara, a larger structure All the shrines are inferior works of art, but nevertheless they have all been restored." — Dr. T. Bloch, *ibid.* p. 46. No survey is mentioned as having been made.

Besides these, there are several other temples which, from the style of their architecture, I would feel inclined to place as

313. Temple of Mukteswar. (From a Photograph.)

earlier than the great temple. One is known as Sâri Dewal, near the great temple, and another, a very complete and beautiful example, is called Maitreswar, which is almost a duplicate, on a small scale, of the great temple, except that it

has no repetition of itself on itself. As above pointed out, almost all the ornaments on the façades of Buddhist temples are repetitions of themselves, but the Hindûs do not seem to have adopted this system so early, and the extent to which it is carried is generally a fair test of the age of Hindû temples. In the great Pagoda there are eight copies of itself on each face, and in the Râjarânî the system is carried so far as almost to obliterate the original form of the temple

314 Plan of Great Temple at Bhuvaneswar Compiled partly from Plan in Babu Râjendralâl Mitra's work, but corrected from Photographs. Scale 50 ft. to 1 in.

GREAT TEMPLE OF BHUVANESWAR

The great temple of Bhuvaneswar, known as the Lingarâja, is one of the landmarks in the style It is traditionally ascribed to a Lalâtendra Kesarî, who is said to have ruled in the 7th century, though this is mere fable, the temple may tentatively be ascribed to about the 9th or 10th century, but be this as it may, taking it all in all, it is perhaps the finest example of a purely Hindû temple in India

Though not a building of the largest class, the dimensions of this temple in plan are, so far as I can make out, far from contemptible The whole length is about 210 ft, with a breadth varying from 60 ft. to 75 ft. The original temple, however, like almost all those in Orissa, consisted only of a vimâna, or Baradewal, and a porch or Jagamohan, shaded darker in the plan (Woodcut No. 314), and they extend only to 160 ft. The Nâta- and Bhoga-mandaps, shaded lighter, were added possibly about the 12th century or even later. Though several temples have all these four apartments, so

far as I can make out, none were originally erected with them. The true Orissan temple is like that represented in Woodcut No. 184, a building with two apartments only, and these astylar, or practically so: the pillars were only introduced in the comparatively modern additions

315 View of Great or Lingarâja Temple, Bhuvaneswar. (From a Photograph.)

The outline of this temple in elevation is not, at first sight,

pleasing to the European eye; but when once the eye is accustomed to it, it has a singularly solemn and pleasing aspect. It is a solid, and would be a plain square tower, but for the slight curve at the top, which takes off the hardness of the outline and introduces pleasingly the circular crowning object (Woodcut No. 315). As compared with that at Tanjor (Woodcut No. 213), it certainly is by far the finer design of the two. In plan the southern example is the larger, being 82 ft. square. This one is only about 66 ft.[1] from angle to angle, though it is 75 ft. across the central projection. Their height is nearly the same, both of them being over 180 ft., but the upper part of the northern tower is so much more solid, that the cubic contents of the two are probably not very different. Besides, however, greater beauty in form, the northern example excels the other immeasurably in the fact that it is wholly in stone from the base to the apex, and—what, unfortunately, no woodcut can show—every inch of the surface is covered with carving in the most elaborate manner. It is not only the divisions of the courses, the roll-mouldings on the angles, or the breaks on the face of the tower: these are sufficient to relieve its flatness, and with any other people they would be deemed sufficient; but every individual stone in the tower has a pattern carved upon it, not so as to break its outline, but sufficient to relieve any idea of monotony It is, perhaps, not an exaggeration to say that if it would take a sum—say a lakh of rupees or pounds—to erect such a building as this, it would take three lakhs to carve it as this one is carved. Whether such an outlay is judicious or not, is another question Most people would be of opinion that a building four times as large would produce a greater and more imposing architectural effect; but this is not the way a Hindû ever looked at the matter Infinite labour bestowed on every detail was the mode in which he thought he could render his

[1] This and the dimensions in plan generally are taken from a table in Bâbu Râjendralâl's 'Antiquities of Orissa,' vol. i. p. 41. I am afraid they are only round numbers, but they suffice for comparison. They are certainly incorrect. In the table the tower is described as 66 ft. by 60, while all the photographs prove that it is undoubtedly square. In the plan (vol. ii. pl. 48) the sides are represented as 66 by 54 ft. from angle to angle, and the internal dimensions are given in the table as 42 square. In the plan they are 44 by 46, and approach so nearly to the exterior, that if the tower had been built, as represented in his plan, it would not have stood for an hour. In figure 314 the internal dimension is reduced to 40 ft. with the larger external one of 65 ft. The Bhoga-mandapa is said in the text (p 72) to be 56 ft. square; by scale it is 63 by 70 The Nâta-mandir is said to be 52 ft. square, and scales 58 by 61. The Jagamohan in the text is said to measure 65 ft. by 45; on the plan it measures 70 by 50. Making these and other adjustments from the plan, it reduces the total length to about 210 ft., instead of the 290 of the plan. This is confirmed by Mr Atkinson's plan (pl. xxviii.). In like manner the temple of Bhagavati (pl. xlviii.) is represented as 160 ft. in length, while Mr. Atkinson makes it only 110.—'Archæology in India,' pp. 49, 50.

temple most worthy of the deity, and, whether he was right or wrong, the effect of the whole is certainly marvellously beautiful. It is not, however, in those parts of the building shown in the woodcut that the greatest amount of carving or design was bestowed, but in the perpendicular parts seen from the courtyard (Woodcut No. 316). There the sculpture is of a very high order and great beauty of design. This, however, ought not to surprise us when we recollect that at Amarâvatî, on the banks of the Krishnâ, not far from the southern boundary of this kingdom, there stood a temple more delicate and elaborate in its carvings than any other building in India,[1] and that this temple had been finished probably eight centuries before this one was erected, and though the history of art in India is now written in decay, its growth and vitality had, in earlier times, been vigorous.

316. Lower part of Great Tower at Bhuvaneswar. (From a Photograph.)

Attached to the Jagamohan of this temple is a Nâta-mandir, or dancing-hall, whose date is, traditionally assigned to about the year 1100; but this is perhaps too early, as there are inscriptions of the 12th and 13th centuries on the doorway of the temple porch, and they are probably earlier than the Nâta-mandir. But even then it enables us to measure the extent of this decay with some degree of certainty. It is elegant, of course, for art had not yet perished among the Hindûs,

[1] 'Tree and Serpent Worship,' plates 48-98; 'Amarâvatî and Jaggayyapeta Buddhist Stûpas' (1887).

but it differs from the style of the porch to which it is attached more than the leanest example of Tudor art differs from the vigour and grace of the buildings of the early Edwards. All that power of expression is gone which enabled the early architects to make small things look gigantic from the exuberance of labour bestowed upon them. A glance at the Nâta-mandir is sufficient for the mastery of its details. A week's study of the Jagamohan would every hour reveal new beauties

The last woodcut may convey some idea of the extent to which the older parts were elaborated: but even the photograph hardly enables any one not familiar with the style to realise how exquisite the combination of solidity of mass with exuberance of ornament really is.

During the five centuries which elapsed between the erection of these two porches, Bhuvaneswar was adorned with some hundreds of temples, some dozen of which have been photographed, but hardly in sufficient detail to enable the student to classify them according to their dates.[1] On the spot it probably would be easy for any one trained to this class of study, and it would be a great gain if it were done. The group nearest in richness and interest is that at Khajurâho, mentioned above (p. 49); but that group belongs to an age just subsequent[2] to that of the Bhuvaneswar group, and only enables us to see that some of the most elaborate of the Katak temples may extend to the year 1000 or thereabouts. It is to this date that I would ascribe the erection of the Râjarânî temple. The names of the more notable, of which I have photographs, with their approximate dates, are given in the list at the end of this chapter; but I refrain from burdening the text with their names, as I despâir, by any reasonable number of woodcuts, of illustrating their marvellous details in anything like a satisfactory manner

317
Plan of Râjarânî Temple (Compiled from a Plan by Bâbu Râjendralâl and corrected from Photographs.) Scale 50 ft to 1 in

The Râjarânî temple, as will be seen from the woodcut (No. 317), is small; but the plan is arranged so as to give great variety and play of light and shade, and as the details

[1] Photographs have enabled me to supply to some extent the deficiency of my local knowledge; but unless photographs are taken by a scientific man for scientific purposes, they do not supply the place of local experience; but a full architectural survey also is much desiderated

[2] Cunningham's 'Reports,' vol. ii. p. 416.

are of the most exquisite beauty, it is one of the gems of Orissan art.[1] The following woodcut (No. 318), without attempting to illustrate the art, is quoted as characteristic of the emblems of the period. Below the pillar are three kneeling elephants, over which domineer three lions or leogriffs. Above this a Nâgnî, or female Nâga, with her seven-headed snake-hood, adorns the upper part of the pillar. They are to be found, generally in great numbers, in almost all the temples of the province. Over the doorway are the Navagraha, or nine planets, which are almost more universal at the Lingarâja temple.

318. Doorway in Râjarânî Temple (From a Photograph.)

Throughout the province, from the time we first meet it, about the 7th century, if so early, till it dies out about A.D. 1300, the style seems to be singularly uniform in its features, and it requires considerable familiarity with it to detect its gradual progress towards decay. Notwithstanding this, it is easy to

[1] Both the temples of Mukteśvara and Râjarânî have been restored by Dr. Bloch, the Archæological surveyor, who gives photographs of them "before, and after repairs," but from so very different points of view, that it is not clear what is the extent of these repairs;—but in the Reports, this method of photographing from different points "before and after" meddling with the buildings, is remarkably frequent. No mention seems to be made of securing correct plans of the temples, which might readily have been made whilst the works were going on. The work done is thus described: "The temples generally were fairly intact, but a number of stones had become either loose or unsafe, in the roof of the mandapa and the upper parts of the spire. These had to be dismantled and built up again, using as far as possible the ancient materials. Carvings, when broken and lost, were replaced by new ones, and the work of the modern stonemason does not fall much behind the old work, except that modern restorations of human or animal figures are less graceful than their older models. Only such carvings have been replaced by new ones of which the original pattern was available."—'Archæol. Survey Annual Report, 1902-03,' pp. 45-46. It is pitiable to think of the barbarity of 20th century imitations, or supposed—but very inferior—imitations, being inserted in these venerable structures.

perceive that there are two styles of architecture in Orissa, which ran side by side with one another during the whole course. The first is represented by the temples of Parasurâmeswar and Mukteswar (Woodcuts No. 312, 313); the second by the great temple (Woodcut No. 315). They are not antagonistic, but sister styles, and seem certainly to have had at least partially different origins. We can find affinities with that of the Mukteswar group in Dhârwâr and most parts of northern India: but I know of nothing exactly like the great temple anywhere else. It seems to be quite indigenous, and if not the most beautiful, it is the simplest and most majestic of the Indo-Aryan styles. And I cannot help suspecting a wooden origin for it—the courses look so much more like carved logs of wood laid one upon another than courses of masonry, and the mode and extent to which they are carved certainly savours of the same material. There is a mosque built of Deodar pine in Kashmîr, to be referred to thereafter, which certainly seems to favour this idea; but till we find some older temples than any yet discovered in Orissa this must remain in doubt. Meanwhile, it may be well to point out that the majority of the older temples in Orissa follow the type of the great temple, and the rest that of Parasurâmswar; but the two get confounded together in the 9th and 10th centuries, and are mixed together into what may almost be called a new style in the Râjarânî and temples of the 11th and 12th centuries.

KANÂRAK.

With, perhaps, the single exception of the temple of Jagannâth at Purî, there is no temple in India better known, and about which more has been written than the so-called Black Pagoda at Kanârak, 19 miles north-east from Purî; nor is there any one whose date and dedication is better known, since the literature on the subject can here be depended upon. Stirling's statement that the present edifice was built by the Râja Narasingh-deva I., who ruled from about 1238 to 1264, is supported by copperplate inscriptions.[1] Complete as this evidence appears, one is almost tempted to question it, for the simple reason that it seems improbable—after the erection of so inferior a specimen of the art as the temple of Purî (*cir.* A.D. 1100) appears to be—the style could have reverted to anything so beautiful as this. In general design and detail it is so similar to the Jagamohan of the great temple at Bhuvaneswar that at first sight I should be inclined to place it in the same century;

[1] 'Asiatic Researches,' vol. xv. p. 327; and 'Journal Asiatic Society of Bengal,' vol. lxxii. (1903), part i. p. 124. Râjendralâl Mitra, ascribed it to Narasingha II., who began to reign, A.D. 1278. 'Antiq. of Orissa,' vol. ii. p. 156.

still the details of the tower exhibit a progress towards modern forms which is unmistakable.[1] Abul Fazl after describing the temple with considerable detail and circumstantiality and ascribing it to Râja Narasingh-deva I., adds that "it is said to be a work of 730 years' antiquity"[2] In other words, it was erected about A.D. 860, or just about 400 years before Narasingh's date which must arise from an error in the hundreds figure. Narasingh-deva must, however, have employed architects of very different tastes and abilities to those engaged a century earlier in erecting the Purî temple.

Another point of interest connected with this temple is, that all authors, apparently following Abul Fazl, agree that it was, like the temple of Mârtând, in Kashmîr (*ante*, vol. i., p. 259), dedicated to the sun.[3] Sun-worship, we know, was prevalent in various parts of India, previous to the 12th century, but it seems to have become merged in the Vishnu cult—Sûrya-Nârâyana being regarded as a form of Vishnu In the west of India there are remains of quite a number of sun-temples of about the eleventh century,[4] and probably others will be found in Central India and elsewhere, when looked for

This temple differs in no respect from other temples of Vishnu found in Orissa The architectural forms are identical; they are adorned with the same symbols The Navagraha, or nine planetary divinities, adorned the lintel of this as of all the temples of the district. The seven-headed serpent-forms are found on every temple, from the great one at Bhuvaneswar to this one, and it is only distinguishable from those of Siva by the obscenities that disfigure a part of its sculptures This is, unfortunately, only too common a characteristic of Vaishnava temples all over India, but is not frequent in Saiva temples. A detached mandap that stood in front of it, occupying a corresponding place to that at Mudherâ, and the fine stambha were removed to Purî, in the 18th century, by the Marâthâs; a corner of the sikhara was still standing in 1839, but within the next thirty years had disappeared, and the great lintel over the entrance to the principal hall, carved with the Navagraha, with other parts about the doorway had fallen, or were removed, and an abortive attempt was made to carry the lintel to Calcutta.

Architecturally, the great beauty of this temple arises from

[1] When I visited Orissa in 1837 and sketched this temple, a great part of the tower was still standing See 'Picturesque Illustrations of Indian Architecture,' plate iii. It has since fallen entirely

[2] 'Ayeen Akbery,' Gladwin's translation, vol. ii. p 16. Jarrett's version (vol. ii. pp. 128-129) reads.—"It is said that somewhat over 730 years ago Râja Narsing Deo completed this stupendous fabric and left this mighty memorial to posterity."

[3] Arka is a name of the sun as the "lightner", the place is mentioned as Arka-kshetra or Padma-kshetra.

[4] 'Archæological Survey of Western India,' vol. ix pp. 73, 74.

the form of the design of the roof of the Jagamohan, or porch—the only part now remaining. Both in dimensions and detail, it is extremely like that of the great temple at Bhuvaneswar, but it is here divided into three storeys instead of two, which is an immense improvement, and it rises at a more agreeable angle. The first and second storeys consist of six cornices each, the third of five only, as shown in the diagram Woodcut No. 184. The two lower ones are carved with infinite beauty and variety on all their twelve faces, and the antefixæ at the angles and breaks are used with an elegance and judgment a true Yavana could hardly have surpassed. There is, so far as I know, no roof in India where the same play of light and shade is obtained with an equal amount of richness and constructive propriety as in this instance, nor one that sits so gracefully on the base that supports it.

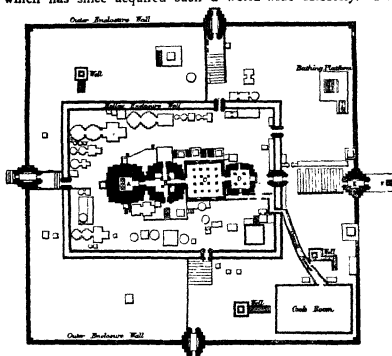
Internally, the chamber is singularly plain, but presents some constructive peculiarities worthy of attention. On the floor, it is about 40 ft square, and the walls rise plain to about the same height. Here it begins to bracket inwards, till it contracts to about 20 ft, where it was ceiled with a flat stone roof, supported by wrought-iron beams — Stirling says nine, nearly 1 ft. square by 12 ft. to 18 ft. long.[1] My measurements made the section less—8 in to 9 in., but the length greater, 23 ft.; and Bâbu Râjendralâl points out that one, 21 ft. long, has a square section of 8 in. at the end, but a depth of 11 in. in the centre,[2] showing a knowledge of the properties and strength of the material that would be remarkable, were it not that they seem to be formed of blocks of short lengths, 3 or 4 in. square, built together, like bricks, and then covered with molten metal. The iron pillar at Delhi (Woodcut No. 373) is a more remarkable example than this, and no satisfactory explanation has yet been given as to the mode in which it was manufactured,—though it may possibly have been by a similar method. Its object, however, is plain, while the employment of these beams here is a mystery. They were not wanted for strength, as the building is still firm after they have fallen, and so expensive a false ceiling was not wanted architecturally to roof so plain a chamber.[3] It seems to be only another instance of that profusion of labour which the Hindûs loved to lavish on the temples of their gods.

[1] 'Asiatic Researches,' vol. xv p 330

[2] These discrepancies arose from the fact that the beams lay on the floor buried under the ruins of the stone roof they once supported, and it was extremely difficult to get at them so as to obtain correct measurements.

[3] See *ante*, p 95. The present survey furnishes no information, nor seems to have made any architectural drawings of the structural arrangements and details of the interior before burying it from all future examination

PURÎ.

When from the old capital we turn to Purî, we find a state of affairs more altered than might be expected at the date to which the celebrated temple there belongs. The Somavansa dynasty with their Saiva worship, had been superseded about 1078 by the Gangavansa, who were nominally much devoted to the service of Vishnu, and they set to work at once to signalise their triumph by erecting the temple to Jagannâth, which has since acquired such a world-wide celebrity. Purî

Scale 200 ft to the Inch

319. Plan of Temple of Jagannâth at Purî (From a Plan by R. P. Mukerji)

holds for the Vaishnava cult, the like rank as Benares or Kâsi does for the Saiva, or Brindâban (Mathurâ) for the worship of Krishna.

How this great fane came to be raised by the new sovereign Anantavarma-Chodagangadeva in a style so inferior to those of the previous dynasty must be matter of conjecture. As fresh conquerors, the Gangas might not have accumulated wealth; and, moreover, they would almost certainly employ architects of their own race who were already known to them. These,

coming from the Dekhan, would naturally adopt the leading features of the temples of their native province in preference even to the best traits of the earlier structures. The style would thus be an intrusion breaking in upon the Orissan style. Even Stirling, who was no captious critic, remarks that it seems unaccountable, in an age when the architects obviously possessed some taste and skill, and were in most cases particularly lavish in the use of sculptural ornament, so little pains should have been taken with the decoration and finishing of this sacred and stupendous edifice[1] It is not in the detail—which, however, is seriously obscured by the plasterings applied during the last two or three centuries,—but the outline, the proportions, and arrangements of the temple, show that the art in this province had received a downward impetus at the time.

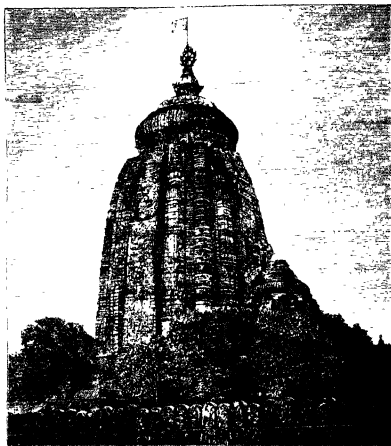
As will be seen from the annexed plan[2] (Woodcut No. 319), this temple has a double enclosure, a thing otherwise unknown in the north Externally it measures 670 ft. by 640 ft., and is surrounded by a wall 20 ft. to 30 ft. high, with four gates. The inner enclosure measures 420 ft. by 315 ft., and is enclosed by a double wall with four openings. Within this last stands the Barâ-Dewal, A, measuring 80 ft across the centre, or 5 ft. more than the great temple at Bhuvaneswar; with its porch or Jagamohan, B, it measures 155 ft. east and west, while the great tower rises to a height of 192 ft.[3] Beyond this two other porches were afterwards added, the Nâta-mandir, C, and Bhoga-mandir, D, making the whole length of the temple about 300 ft., or as nearly as may be the same as that at Bhuvaneswar. Besides this there are, as in all great Hindû temples, numberless smaller shrines within the two enclosures, but, as in all instances in the north, they are kept subordinate to the principal one, which here towers supreme over all.

Except in its double enclosure, and a certain irregularity of plan, this temple does not differ materially in arrangement from the great ones at Bhuvaneswar and elsewhere; but besides the apparent want of detail already remarked upon, the outline of its vimâna is quite devoid either of that solemn solidity of the earlier examples, or the grace that characterised those subsequently erected; and when we add to this that whitewash and paint have done their worst to add vulgarity to forms already sufficiently ungraceful, it will easily be understood that this, the most famous, is also the most disappointing of northern Hindû

[1] 'Asiatic Researches,' vol. xv. p. 315.

[2] The plan is reduced from one to a scale of 40 ft. to 1 inch, made by an intelligent native assistant to the Public Works Department, named Râdhica Prasâd Mukerji, and is the only plan I ever found done by a native sufficiently correct to be used, except as a diagram, or after serious doctoring.

[3] Hunter, 'Orissa,' vol. i. p. 128.

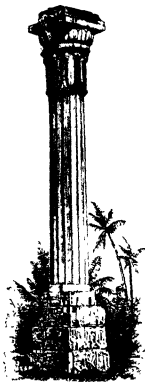
temples.[1] As may be seen from the following illustration (Woodcut No. 320), the parts are so nearly the same as those found in

320. View of Tower of Temple of Jagannâth. (From a Photograph.)

all the older temples at Bhuvaneswar, that the difference could

[1] News reached this country, about thirty two years ago, of a curious accident having happened in this temple. Just after the gods had been removed from their Sinhâsan to take their annual excursion to the Gundichâ-ghar, some stones of the roof fell in, and would have killed any attendants, and smashed the gods had they not fortunately all been absent. Assuming the interior of the Bara-Dewal to be as represented (Woodcut No. 184), it is not easy to see how this could have happened. But in the same woodcut the porch or Jagamohan of the Kanârak pagoda is represented with a flat false roof, which had fallen. That roof, however, was formed of stone laid on iron beams, and looked as if it could only have been shaken down by an earthquake. I have little doubt that a similar false roof was formed some way up the tower over the altar at Purî, but formed probably of stone laid on wooden beams, and either decay or the

hardly be expressed in words, even the woodcut, however, is sufficient to show how changed they are in effect, but the building itself should be seen fully to appreciate the degradation in style.

JÂJPUR AND KATAK.

Jâjpur, on the Baitaranî, was one of the old capitals of the province, and even now contains temples which, from the squareness of their forms, may be old, but, if so, they have been so completely disguised by a thick coating of plaster, that their carvings are entirely obliterated, and there is nothing by which their age can be determined The place was the scene of the struggle in the 16th century between the Musalmâns and Hindûs for the mastery of the province, and, under Sulaimân and his Afghân soldiers, it was reduced to ruins Like Anhilapur in Gujarât, the ruined structures became a quarry for building materials, and the handsome mosque built by Nawâb Abu Nasir Khân in 1681 was raised out of the ancient Hindû remains[1] There is one pillar, however, still standing, which deserves to be illustrated as one of the most pleasing examples of its class in India (Woodcut No 321). Its proportions are beautiful, and its details in excellent taste, but the mouldings of the base, which are those on which the Hindûs were accustomed to lavish the utmost care, have, unfortunately, been destroyed[2] Originally it is said to have supported a figure of Garuda—the Vâhana of Vishnu—and a figure is

321 Hindû Pillar in Jâjpur (From a Photograph.)

white ants having destroyed the timber, the stones have fallen as narrated.

A similar roof so supported on wooden beams still exists in the structural temple on the shore at Mâmallapuram, and, I have no doubt, elsewhere, but it is almost impossible to get access to these cells when the gods are at home, and the places are so dark it is equally impossible to see, except when in ruins, how they were roofed.

[1] For an account of Jâjpur antiquities, see Sir W. W. Hunter's 'Orissa,' vol. i. pp 265-273, or his 'Statistical Account of Bengal,' vol. xviii. pp. 85-89. He adds that the Public Works officers tore down "the last remnants of the ancient palace, and built bridges along the Trunk Road with the stones"

[2] The shaft is a chlorite monolith 29 ft. 9 in. in height, standing on a base of three plinths, 7 ft. in height. 'Proceedings As. Soc. Bengal, 1872,' part i. at p. 31; Workman's 'Through Town and Jungle,' pp. 218f.

pointed out as the identical one. It may be so, and if it is the case, the pillar is of the 10th or 11th century. This also seems to be the age of some remarkable pieces of sculpture which were discovered some years ago on the brink of the river, where they had apparently been thrown down by Muhammadan bigotry.[1] They are in quite a different style from anything at Bhuvaneswar or Kanârak, and probably more ancient than anything of the same kind at those places

Katak, according to tradition, became the capital of the country in A.D. 989-1006, when a certain Markat Kesarî is said to have built a stone revêtement to protect the site from encroachment of the river[2] It too, however, has suffered, first from the intolerant bigotry of the Moslim, and afterwards from the stolid indifference of the British rulers,[3] so that very little remains. But for this the great palace of Makund Deo, the contemporary of Akbar, might still remain to us in such a state at least as to be intelligible. Abul Fazl's description of this palace, however, has been misunderstood by the translators, who have represented it as "consisting of nine storeys," instead of nine courts or enclosures. "The first enclosure was for elephants, camels, and horses, the second for artillery and military stores where also were quarters for the guards and other attendants; the third was occupied by porters and watchmen, the fourth was appropriated for the several artificers, the kitchens made the fifth range, the sixth contained the Râja's public apartments; the seventh was for the transaction of private business; the eighth was where the women resided; and the ninth was the Râja's sleeping apartment." "To the south," he adds, "of this palace is a very ancient Hindû temple"[4]

As Orissa at the period when this was written was practically a part of Akbar's kingdom, there seems little doubt that Abul Fazl's description was furnished by some one who knew the place.

Although it thus consequently happens that we have no more means of ascertaining what the civil edifices of the Indo-Aryans of Orissa were like, than we have of those of the contemporary Dravidians, there is a group of engineering objects which throw some light on the arts of the period As has been

[1] They were of more than life size and represented three of the Mâtris.

[2] 'Asiatic Researches,' vol. xv p 367.

[3] *Ibid* p 335; Hunter's 'Orissa,' vol i. p. 266

[4] 'Ayeen Akbery,' Gladwin's translation, vol ii. p 13, and Jarrett's, vol ii. p. 127. The word âshiyâna "nests," was rendered "storeys." W. Bruton, who visited Katak in 1633, makes it plain that "enclosures" or "courts" are meant.—'News from the East Indies' in Osborne's 'Collection of Voyages and Travels,' 1745, vol. ii. pp. 271-272, 275.

frequently stated above, the Hindûs hate an arch, and never will use it except under compulsion. The Muhammadans taught them to get over their prejudices and employ the arch in their civil buildings in later times, but to the present day they avoid it in their temples in so far as it is possible to do so. In Orissa, however, in the 13th century, they built numerous bridges in various parts of the province, but never employed a true arch in any of them. The Athara-nalâ bridge at Purî has been drawn

322 Hindû Bridge at Jâjpur. (From a Photograph.)

and described by Stirling, and is the finest in the province of those still in use. He ascribes its construction to Kabir Narsingh-deva II., about 1280; Râjendralâl Mitra placed it two centuries earlier.[1] Between the abutments it is 278 ft. long, with nineteen spans of 7 to 16 ft. wide, and with a roadway 38 ft. wide. That shown in the above woodcut (No. 322) is at Jâjpur and is probably older, and certainly more picturesque, though constructed on the same identical plan. It may be unscientific, but many of these old bridges are standing and

[1] From the Purî temple annals.—'Antiquities of Orissa,' vol. ii. p. 112. Neither date has satisfactory authority.

in use while many of those we have constructed out of the ruins of the temples and palaces have been swept away as if a curse were upon them.

Before leaving these Orissa temples mention may be made of three at Mukhalingam, in Ganjâm district, a place of pilgrimage adjoining the town of Nagarakatakam. This was the site of Kalinganagara, the old capital of the eastern Ganga dynasty of Kalinga before, and for some time after, their conquest of Orissa in the 11th century.[1] The place is described as a wilderness of ruins, and the largest and most entire of the temples consists of a shrine and mandap with two rows of three plain pillars in each[2] supporting the roof. Outside, this roof is in the Orissa form, somewhat flat and with three finials in line across it. The shrine is surmounted by a tower or *s*ikhara of numerous thin moulded courses, crowned by a double amala*s*ilâ with domed apex and small finial. The doorway, on the east, is deeply recessed and has two broad frames round the entrance—the inner sunk considerably within the outer—and both richly carved on their faces and lintels with floral patterns. This is flanked by square jambs sculptured on the front with figures in compartments and supporting a projecting lintel. Projecting still more on each side is a richly carved pilaster with capitals of the Gupta type, supporting an upper lintel crowded with figures.

Smaller temples occupy the corners of the court, which is enclosed by a wall, and has entrances on the east and south sides. The gateway in front of the temple has, like Orissan porches, a stepped roof with leogriffs over it. The entry, like that of the mandap, is considerably recessed, the inner jambs and three lintels being elaborately carved.

Of the Bhîme*s*vara temple only the shrine and mandap remain, and are of the general style of the Mukhalinge*s*vara just described When its inscriptions have been fully examined, some definite clue may be found to determine its date, which may perhaps be of the 11th century. But the finest of the group has been the Some*s*var temple, of which only the *s*ikhara remains. It resembles in its proportions and variety of sculptures the Para*s*urâme*s*war temple at Bhuvane*s*war. The carving round the three niches on each face are exceedingly elaborate and interesting. But until we have the fuller illustrations of a survey or some epigraphical guidance, we may

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[1] Nagarakatakam is on the Vam*s*adhârâ river, in Lat 18° 34′ N., long 84° 2′ E., about 20 miles N.N.W. from the modern Kalingapatam, and within the Parlâ-Kimedi estate.

[2] These pillars and the walls bear inscriptions, some of which are said to go back to the 10th century.

assume that it belongs to the later part of the 11th or to the 12th century.[1]

CONCLUSION.

The above may be considered as a somewhat meagre account of one of the most complete and interesting styles of Indian architecture. It would, however, be impossible to do it justice without an amount of illustration incompatible with the scope of this work, and with details drawn on a larger scale than its pages admit of.[2]

An attempted classification, though merely tentative, has on several occasions been made in order to attract attention to the subject, in hopes that some one with opportunities and knowledge might examine and revise it. With only such photographs as are available to depend upon, we can come to no satisfactory conclusions: at best they give only a partial, literally one-sided view of a building, and to ascertain its age we ought to be able to look all round it, and make ourselves familiar with its locality and surroundings. The thing will not be satisfactorily done till some one visits Orissa who has sufficient knowledge of the principles of archæology to arrange the temples in a chronometric scale; and this should not be difficult, the buildings are so uniform in character, and their architects expressed so simply and unaffectedly the feelings and art of their age.

A good monograph of the Orissan style would convey a more correct idea of what Indian art really is than a similar account of any other style we are acquainted with in India. From the erection of the temples of Parasurâmeswar and others, perhaps in the 7th century, to that of Jagannâth at Purî, A.D. 1100, the style steadily progresses without admixture of foreign elements, while the examples are so numerous that one might be found for every fifty years of the period, and we might thus have a chronometric scale of Hindû art during these centuries that would be invaluable for application to other places or styles. It is also in Orissa and Kalinga, if anywhere, that we may hope to find the *incunabula* that will explain much that is now mysterious in the forms of the temples and the origin of many parts of their ornamentation.

[1] The editor is indebted to Bâbu Monmohan Chakravarti, B.A., for valuable information bearing on the contents of this chapter and of that on the Orissa caves, as also for the use of photographs and notes on these temples which have formed the basis of the above account.

[2] Thirty years ago it was hoped that Râjendralâl Mitra's work would, to some extent at least, have supplied the deficiency of the first draft of this outline; but this expectation was not realised by its publication in 1880. With a moderate knowledge of the science of archæology and accuracy of observation it would not have been very difficult to arrange the temples in some sort of approximate sequence determined by careful study of the style. Nor has much information in this direction been added since.

It is not only, however, that many technical questions will be answered when any competent person undertakes a thorough examination of the ruins, but they will afford a picture of the civilisation and of the arts and religion of an Indian community during seven centuries of isolation from external influences, such as can hardly be obtained from any other source. So far as we at present know, it is a singularly pleasing picture, and one that will well repay any pains that may be taken to present it to the English public in a complete and intelligible form.

TENTATIVE LIST OF DATES OF THE PRINCIPAL ORISSAN TEMPLES.[1]

DATES	
650-900	Parasurâmeswar, N W from Mukteswar
	Sitireswar.
	Kapâlinî.
	Uttareswar
	Somesvar at Mukhalingam
900 1000	Sâri Deula
	Mukteswar, S. from Siddheswar
	Lingarâj, Tribhuvaneswar or Bhuvaneswar Great Temple
	Kedâreswar, S from Mukteswar
	Siddheswar, 50 yards N from Mukteswar
	Bhagavatî
	Somesvar, 250 yards N from the Great Temple
	Brahmeswar
	Mukhalingeswar
	Virajâ and Varâhanâth at Jâjpur
	Mârkandeswar at Purî.
11th century	Nâkeswar
	Bhâskareswar
	Râjarânî, 300 yards N.E from Mukteswar
	Chitrakarnî
	Kapileswar
12th century	Râmeswar.
	Yameswar
	Maitreswar.
	Great Temple of Jagannâth at Purî
	Megheswar.
13th century	Vâsudeva, on S E of the Vindusâgara tank
	Kanârak Sun Temple.
	Nâta Mandap of Lingarâja temple.
	Vishnu temple at Mâdab, in Katak district.
	Gopinâth at Remunâ.

The object of this, or any chronological classification of such a series of temples, is to bring us nearer a solution of one of the most obscure problems that perplex the student of Indian architecture.

[1] This list must not be regarded as in any sense authoritative, rather it is submitted for revision on larger knowledge Were these temples photographed and planned in the way the Dutch Archæological Survey of Java does its work, it would be possible to arrange definitely the Orissa temples.

CHAPTER III.

WESTERN INDIA.

CONTENTS.

DHÂRWÂR

IF the province of Orissa is interesting from the completeness and uniformity of its style of Indo-Âryan architecture, that of Dhârwâr, or, more correctly speaking of Mahârâshtra, is almost equally so from exactly the opposite conditions. In the western province, the Dravidian style struggles with the northern for supremacy during all the earlier stages of their growth, and the mode in which the one influenced the other will be one of the most interesting and instructive lessons we can learn from their study, when the materials are available for a thorough investigation of the architectural history of this province. In magnificence, however, the western can never pretend to rival the eastern province. There are more and far finer buildings in the one city of Bhuvaneswar alone than in all the cities of Mahârâshtra put together, and the extreme elaboration of their details gives the Orissan examples a superiority that the western temples cannot pretend to rival.

Among the oldest and most characteristic of the Dhârwâr temples is that of Pâpanâtha, at Pattadakal. As will be seen from the plan of this temple given above (Woodcut No. 182, vol. i., page 322), the cell, with its tower, has not the same predominating importance which it always had in Orissa; and instead of a mere vestibule it has a four-pillared porch, which would in itself be sufficient to form a complete temple on the eastern side of India. Beyond this, however, is the great porch, Mandapa, or Jagamohan—square, as usual, but here it possesses sixteen pillars, in four groups, instead of the astylar arrangements so common in the east. It is, in fact, a copy, with very slight alterations, of the plan of the great *S*aiva temple at the same place (Woodcut No. 204), or the Kailâs at Elûrâ (Woodcut No. 199). These, with others, form a group of early temples

but the central belt is more pronounced, and always apparently was on the west side of India. It will also be observed in this tower that every third course has on the angle a form which has been described as an amalaka in speaking of the crowning members of northern temples. Here it looks as if the two intermediate courses simulated roofs, or a roof in two storeys, and then this crowning member was introduced, and the same thing repeated over and over again till the requisite height was obtained. In the Parasurâmeswar there are three intermediate courses (Woodcut No. 312); in the great tower at Bhuvaneswar, five; and in the more modern temples they disappear from the angles, but are supplied by the miniature temple-forms applied to the sides. In the temple at Bodh-Gayâ the same form occurs (Woodcut No. 19) on the angle of each storey; but there it looks more like the capital of a pillar, which, in fact, I believe to be its real original. But from whatever form derived, this repetition on the angles is in the best possible taste, the eye is led upwards by it, and is prepared for the crowning member, which is thus no longer isolated and alone, but a part of a complete design.

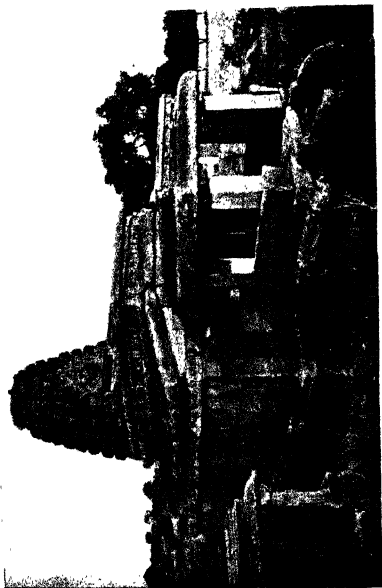
The frequency of the repetition of this ornament is, so far as is now known, no bad test of the age of a temple. If an example were found where every alternate course was an amalaka, it probably would be older than any temple we have yet known It would then represent a series of roofs, five, seven, or nine storeys, built over one another. It had, however, passed into conventionalities before we meet with it.

To the north-west of Aihole is a Saiva cave-temple,[1] and near it on the north-west is an old temple with a porch on four plain square pillars, the mandap built of massive stones, with a sloping roof, a pradakshina round the shrine, and, from the figure of Kârttikeya on the roof of the entrance porch and of Garuda on the lintel of the shrine door, it was evidently dedicated to Vishnu (Plate XXIII) It is known as the temple of Huchchhîmallîgudi, and appears to be of quite as early a date as any at Bhuvaneswar or elsewhere. The Sikhara is relatively small, and if we compare this temple with that of Parasurameswar (Woodcut No. 312), we observe that the latter is much more developed in style than the former. Unfortunately we have no direct record of its construction, the only indication of its date is an inscription on the north side of the west front, recording a grant for oil made in the thirteenth year of the Chalukya King Vijayâditya, that is in 718 A.D.;[2] but the temple was clearly then established, we know not how

[1] 'Archæological Survey of Western India,' vol. i.; 'Report on Belgâm and Kaladgi,' pp. 38-40.

[2] 'Indian Antiquary,' vol. viii, p. 284.

Huchchhimalligudi Temple at Aihole

[To face page 119 Vol II

long previously, though we may fairly assume that it had been erected at least as early as, if not before, the reign of Vikramâditya (655 to 680 A.D.). Indeed, comparing it with the temple of Pâpanâtha at Pattadakal (Woodcut No. 323) we are at once struck by the more ancient style of the features of this, and would be quite prepared, on fair evidence, to ascribe it to the beginning of the 7th century or soon after.

When the drawings made by the Archæological Survey of the temples of this district[1] are completely published, they will, no doubt, throw immense light on the early history of this style.[1] As the case now stands, however, the principal interest centres in the caves of Bâdâmi, which being the only Brahmanical caves known that have a positive date upon them, they give us a fixed point from which to reason in respect of other series such as we never had before.

Brahmanical Rock-cut Temples.

Although the structural temples of the Bâdâmi group[2] in Dhârwâr are of such extreme interest, as has been pointed out above, they are surpassed in importance, for our present purposes at least, by the rock-cut examples

At Bâdâmi there are three caves, not of any great dimensions, but of singular interest from their architectural details and sculptures, and more so from the fact that one of them, No. 3, contains an inscription with an undoubted date upon it. There are, as pointed out above, innumerable Buddhist inscriptions on the western caves, but none with dates from any well-ascertained era, and none, unfortunately, of the Brahmanical caves at Elûrâ or elsewhere have inscriptions that can be fully deciphered, and not one with a date on it The consequence is, that the only mode by which their ages could be approximated was by arranging them in sequences, according to our empirical or real knowledge of the history of the period during which they were supposed to have been excavated. At Elûrâ, for instance, it was assumed that the Buddhist preceded the Brahmanical excavations, and that these were succeeded by the Jaina; and various local and architectural peculiarities

[1] The works as yet published on this subject are the 'Architecture in Dhârwâr and Mysore,' fol , 100 plates, Murray, 1866; Burgess's 'Archæological Report on the Belgâm and Kaladgi Districts,' 1874; and Rea's 'Chalukyan Architecture,' 1896

[2] For architectural purposes the three places may be considered as one. Aihole is about 7 miles north-east of Pattadakal, and Pattadakal 8 miles east-north-east from Bâdâmi. Fifteen miles covers the whole, which must have been in the 6th or 7th century a place of great importance, Vâtâpipura or Bâdâmi being then the capital of the Chalukyas —'Journal Royal Asiatic Society,' vol. iv. p 9; 'Indian Antiquary,' vol. viii. p. 243

rendered this hypothesis extremely probable. Arguing on this basis, it was found that the one chaitya cave there, the Viswakarma, was nearly identical in style with the last of the four chaityas at Ajantâ (No. 26), and that cave, for reasons given above, was placed at the end of the 6th century, say A.D. 600. The caves next it were assumed to occupy the 7th century, thus leading on to the Râmeswara group, about A.D. 700, and the Jaina group would then have occupied the 9th century. The age of the Kailâs or Dravidian group, being exceptional, could only be determined by extraneous evidence, and, as already pointed out, from its extreme similarity with the great temple at Pattadakal, belongs almost certainly to the 8th century; and from a similar chain of reasoning the Jaina group is brought back to a slightly subsequent age.

The inscription of the No. 3 cave at Bâdâmi is dated in the twelfth year of the reign of a well-known king, Kîrtivarman I., in 'the 500th year after the inauguration of the Saka king'; the date therefore is A.D. 578. Admitting, which I think its architecture renders nearly certain, that it is the earliest of the three, still they are so like one another, that the latest may be assumed to have been excavated within the limits of the next century, say A.D. 575-680. Comparing the architecture of this group with that known as the central or Râmeswara group at Elûrâ, it is so nearly identical, that though it may be slightly more modern, it can hardly now be doubted they too, including perhaps the cave known as the Râvana-ka-khai, must have been excavated in the 7th century. Instead, therefore, of the sequence formerly adopted, we are forced to fall back on that marvellous picture of religious toleration described by the Chinese Pilgrim as exhibited at Allahâbâd in the year A.D. 643. On that occasion the King Harsha Silâditya distributed alms or gifts to 10,000 priests (*religieux*), the first day in honour of Buddha, the second of Âditya the Sun, and the third in honour of Îswara or Siva;[1] and the eighteen kings who assisted at this splendid quinquennial festival seem promiscuously to have honoured equally these three divinities. With this toleration at headquarters, we ought not to be surprised if we find the temples of different religions overlapping one another to some extent.

As a reminiscence of the eclecticism of the time, it requires some experience in the antiquary to ascertain to what divinity a temple or cave, before the 8th century, was dedicated. In the Dâs Avatâra and Râvan-ka-khai caves at Elûrâ, for

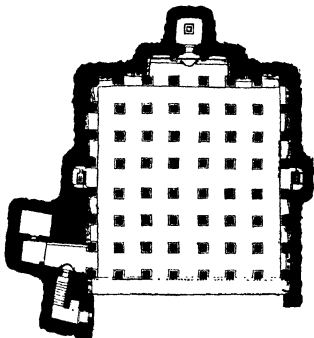
[1] 'Histoire de Hiouen Thsang,' p. 255; 'Vie et Voyages,' tome i. p. 280; or Beal's 'Buddhist Records,' vol. i. p. 233; and 'Life,' pp. 185f.

instance, we find the sculptures about equally divided between

324 The Dâs Avatâra Cave-temple at Elûrâ (From a Photograph.)

*S*aiva and Vaishnava subjects, whilst the shrines contain lingams of *S*iva; and in two of the three Bâdâmi caves,

whilst the larger figures are mostly Vaishnava, the others are largely *S*aiva, and the *vedis* or altars in the middle of both shrines may properly be supposed to have supported the emblem of *S*iva.

The Dâs Avatâra (No. 15) at Elûrâ, is a two-storeyed cave, very similar in its architectural details to the Buddhist Dôn Thal and Tîn Thal, but the sculptures are all Brahmanical. At first sight it seems as if the excavation had been made by the Buddhists, and appropriated and finished by their successors. But on examination it appears that we owe it entirely to the

325. Plan of the Upper Floor of the Dâs Avatâra Cave at Elûrâ. Scale 50 ft to 1 in.[1]

Brâhmans It is, perhaps, the earliest Brahmanical temple here; and it is natural to suppose that when the *S*aivas attempted to rival their antagonists in cave-temples they should follow the models that already existed, merely appropriating them to their own worship. The circumstance, however, that makes this most probable is the existence of a pseudo-structural mandapa, or shrine of the Nandi, in the courtyard (Woodcut No. 324); this evidently must have been a part of the original design, or the rock would

[1] Reduced from 'Cave Temples of India,' plate 74.

not have been left here for it, and it is a model of the usual structural building found in *Saiva* temples in different parts of India[1] This is a piece of bad grammar the Buddhists never were guilty of; their excavations always are caves, whilst the great characteristic of Brahmanical excavations, as distinguished from that of their predecessors, is that they generally copied structural buildings, a system that rose to its greatest height in the Kailâs, already described (vol i., page 344). The Buddhist excavations, on the contrary, were always caves and nothing else. The ground floor is little more than a corridor, 95 ft. in length, and about 30 ft. deep, with cells. The upper storey hall, of which Woodcut No. 325 is the plan, is nearly square—95 ft wide by 97 ft. deep—the roof supported by forty-four square pillars, of which those in front are richly carved The recesses between the pilasters in the side walls are filled with large sculptures in alto-rilievo—those on the north side being *Saiva*, and on the other mostly Vaishnava

Unfortunately there are no Buddhist buildings or caves so far south as Bâdâmi, and we are consequently deprived of that means for comparison · such as are south of Kârlê, at Karhâd, etc., are of little or no account architecturally. The result, however, of the translations of inscriptions collected during the last thirty-five years, and of the surveys made, leads us to compress our history of the western caves within narrower limits than at one time seemed necessary The caves in the south of Bijâpûr district seem all to be comprised between the years 500 and 750 A D., and those at Elûra, being synchronous, must also, with the exception of the Jaina caves, be limited to the same period of time, with probably a slight extension either way.

The following may now be offered as an approximate chronology of the far-famed series of caves at Elûrâ :

Buddhist .—Visvakarma to Tin Thâl	500-650
Hindû —Dâs Avatâra, Râvan-ka-Khai, and Râmesvara	650-750
Dhumar Lenâ and others . . .	750-850
Dravidian .—Kailâs	750-800
Jaina .—Indra and Jagannâth Sabhâs, etc . .	800-1100

The cave at Elephanta follows of course the date here given for the Dhumâr Lena, and must thus date after the middle of the 8th century.[2]

[1] The Râshtrakûta inscription on this mandapa is only very partially legible, and is probably of later date than the work. — 'Archæological Survey of Western India,' vol. v. p. 87.

[2] This is the date given in the description in 'The Caves of Elephanta,' Bombay, 1871, p. 5.

These dated caves and buildings have also rendered another service to the science of archæology, inasmuch as they enabled us to state with confidence, even before the inscriptions were properly translated, that the principal caves at Mâmallapuram must be circumscribed within the same limits. The architecture there being so lean and poor, is most misleading, but, as hinted above, I believe it arose from the fact that it was Dravidian, and copied literally from structural buildings, by people who had not the long experience of the Buddhists in cave architecture to guide them But be that as it may, a comparison of the Hindû sculptures at Bâdâmi with those of Elûrâ on the one hand, and Mâmallapuram on the other, renders it certain that they were practically contemporary The famous bas-relief of Durgâ, on her lion, slaying Mahishâsura, the Minotaur,[1] is earlier than one very similar to it at Elûrâ ; and one, the Virâtarûpa or Vâmana, is later by probably a century than the sculpture of the same subject in cave 3 at Bâdâmi[2] Some of the other bas-reliefs are later, some earlier, than those representing similar subjects in the three series, but it seems now impossible to get over the fact that they are practically synchronous. Even the great bas-relief, which I was inclined to assign to a more modern period, probably belongs to the 7th or 8th century. The great Nâga king, whom all the world are there worshipping, is represented as a man whose head is shaded by a seven-headed serpent-hood, but also with a serpent-body from the waist downwards. That form was not known in the older Buddhist sculptures, but has now been found on all the Orissan temples (for instance Woodcut No. 318), and frequently at Bâdâmi[3] This difficulty being removed, there seems no reason why this gigantic sculpture should not take the place, which its state of execution would otherwise assign to it—say A.D. 700—as a mean date, subject to a subsequent adjustment.[4]

In a general work like the present it is of course impossible to illustrate so extensive a group as that of the Brahmanical caves to such an extent as to render their history or affinities intelligible to those who have not by any other means become familiar with the subject. Fortunately, however, in this instance, sufficient literature on the subject is available by which any one may readily attain the desired information.[5]

[1] 'Transactions of the Royal Asiatic Society,' vol. ii. plate 4.

[2] *Loc. cit.* plate 6; and Burgess, 'Report on Belgâm,' etc., plate 31.

[3] *Loc. cit.* plates 20, 23, 40.

[4] There is a second bas-relief, almost similar but in worse preservation, about 30 yards south from this

[5] Apart from the older works, reference may be made to 'The Cave Temples of India' (1880), pp. 165 *et seqq.*; the 'Reports of the Archæological Survey of Western India,' vols. i. iii. v. and vi.; and 'The Rock Temples of Elephanta' (Bombay, 1871).

After all, however, the subject is one more suited to the purposes of the mythologist and the sculptor than to the architect. Like all rock-cut examples, except the Dravidian, the caves have the intolerable defect of having no exteriors, and consequently no external architectural form. The only parts of them which strictly belong to architectural art are their pillars, and though a series of them would be interesting, they vary so much, from the nature of the material in which they are carved, and from local circumstances, that they do not possess the same historical significance that external forms would afford. Such a pillar, for instance, as this one from the cave called Lankesvara on the side of the pit in which the Kailâs stands (Woodcut No. 326), though in exquisite taste as a rock-cut example, where the utmost strength is apparently required to support the mass of rock above, does not afford any points of comparison with structural examples of the same age. In a building it would be cumbersome and absurd, under a mass of rock it is elegant and appropriate. The pillars in the caves at Mâmallapuram fail from the opposite fault: they retain their structural form, though used in the rock, and look frail and weak in consequence; but while this diversity in practice prevailed, it prevents their use as a chronometric scale being appreciated, as it would be if the practice had been uniform. As, however, No. 3 at Bâdâmi is a cave with a positive date, A.D. 578, it may be well to give a plan and section (Woodcuts Nos. 327 and 328) to illustrate its peculiarities, so as to enable a comparison to be made between it and other examples. Its details will be found fully illustrated in the first volume of the Survey of Western India.

326. Pillar in Kailâs, Elûrâ.
(From a Drawing by the Author)

Though not one of the largest, it is still a fine cave, its verandah measuring 70 ft., with a depth of 50 ft., beyond which is a simple plain cell, containing the altar for the image. At one end of the verandah is the Narasinha Avatâra; at the

other end Vishnu seated on the five-headed serpent Ananta. The front pillars have three brackets each, of very wooden design, all of which are ornamented by two or three figures, generally a male and female, with a child or dwarf—all of considerable beauty and delicacy of execution. The inner pillars are varied, and more architectural in their forms, but in the best style of Hindû art.[1]

327. Plan of Cave No. 3, Bâdâmi. (From a Plan by J. Burgess.) Scale 50 ft. to 1 in.

Compared with the style of art found at Amarâvatî, on the opposite coast, it is curious to observe how nearly Buddha, seated on the many-headed Nâga,[2] resembles Vishnu on Ananta in the next woodcut, and though the religion is changed, the art has hardly altered to such an extent as might be expected, considering that thre

328. Section of Cave No 3, Bâdâmi (From a Drawing by J. Burgess.) Scale 25 ft. to 1 in.

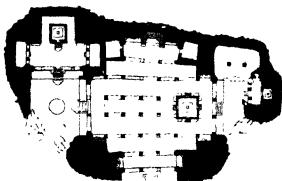
centuries at least had probably elapsed between the execution of these two bas-reliefs. The change of religion, however, is complete.

Sometimes the Hindûs successfully conquered one of the main difficulties of cave architecture by excavating them on the spur of a hill, as in the Dhumar Lenâ at Elûrâ, and by surrounding them by courts, as there and at Elephanta and at Jogeswar; so that light was introduced on three sides instead of only one, as was too often the case both with Buddhist and Hindû excavations. These, though probably among the last, are certainly the finest Hindû excavations existing, if looked at from an architectural point of view. The Elûrâ example is the larger and finer, measuring 149 ft. by 148 (Woodcut No. 329). That at Elephanta, though extremely similar in general arrangement (No. 330), is less regular in

[1] Burgess, 'Report on Belgam and Kaladgi,' plates 24-35.

[2] 'Tree and Serpent Worship,' plate 76; and 'Cave Temples of India,' plate 39.

plan, and also somewhat smaller, measuring only 130 ft. by 129 ft. It is easy to see that if these temples stood in the open they would only be porches, like that at Belûr (Woodcut No. 257), and numberless other examples, which are found everywhere; but the necessities of rock-cut architecture required generally that the cella should be placed inside the mandapa, or porch, instead of externally to it, as was always the case in structural examples. This, perhaps, was hardly to be regretted; but it shows how little the practice of cutting temples in the rock was suited to the temple-forms of the Hindûs, and we need not, therefore, feel surprised how readily they abandoned it when any idea of rivalling the Buddhists had ceased to prompt their efforts in this direction.

329. Dhumar Lenâ Cave at Elurâ. (From Daniell's 'Views in Hindostan.'[1]) Scale 100 ft. to 1 in.

330. Elephanta Cave. (From a Plan by J. Burgess.) Scale 100 ft. to 1 in.

In the capitals of the pillars in these caves, as represented in the accompanying woodcut (No. 331) from the Elephanta cave, we find the perfected form of those ribbed cushion-capitals that are found at Bâdâmi and in so many other caves, dating from at least as early as the 6th century; but in these excavations it seems to have reached its fullest development and beauty of form. From its frequent recurrence of

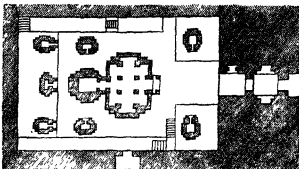
[1] Daniell's plan is not quite accurate, but sufficiently so for our purpose. See 'Cave Temples of India,' plate 79, and 'Archæological Survey of Western India,' vol. v. plate 37.

earlier and later date it has come to be considered the typical capital of early Indian architecture. It may be compared to the Doric order of classical art as, in the same way, the vase with foliage falling over it, as exemplified in the Râmeswara cave and elsewhere, may be regarded as an Oriental type of the Ionic order. This ribbed cushion form of capital also reminds us of the amalâsilâ crown to Hindû sikharas[1] though we may be unable to say from what it has been derived, we can hardly escape the conviction that in their origin they are akin

331. Pillars and corner of the Shrine at Elephanta (From a Photograph)

So far as I know, there is only one example where the Indo-Aryan architects attempted to rival the Dravidian in producing a monolithic exterior. It is at a place called Dhamnâr, in Rajputana, where, as already mentioned (*ante*, vol. i, pp. 165 and 200), there is an extensive series of Buddhist excavations. In order to mark their triumph over that fallen faith, the Hindûs, apparently late in the 8th century, drove an open cutting into the side of the hill, till they came to a part high enough for their purpose. Here they enlarged this cutting into a pit 97½ ft. by 67 ft., leaving a Vaishnava temple of elegant architecture standing in the centre, with seven small cells surrounding it, precisely as was done in the case of the Kailâs at Elûrâ. The effect, however, can hardly be said to be pleasing (Woodcut No. 332). A temple standing in a pit is always an anomaly, but in this instance it is valuable as an unaltered example of the style, and as showing how the small shrines of Sivâlayas[2]—which have too often disappeared—were originally grouped round the greater Saiva shrines. The value of this characteristic we shall be better able to appreciate when we come to describe the temples at Prambanan and other

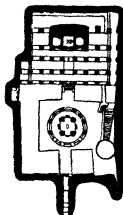
[1] *Ante*, vol. i. p 323. [2] *Ante*, vol. i. p. 336.

places in Java. The Buddhists had their cells for priests and ascetics; the Jains filled their residential cells with images

332 Rock-cut Temple at Dhamnâr. (From a Plan by Gen. Cunningham.) Scale 50 ft to 1 in

and made them little temples; and the Hindûs in their shrines made smaller cellæ for the attendants or family of the god.

333. Saiva Temple near Poona. (From a Sketch by Daniell)

One more illustration must conclude what we have at present to say of Hindû rock-cut temples. It is the temple of Panchâlesvara at Bhâmburdê near Poona, and is but little known, though much more appropriate to cave architecture

than most examples of its class. The temple itself is a simple pillared hall, with eight pillars in front, and possibly had originally a structural sikhara built on the upper plateau to mark the position of the sanctuary (Woodcut No. 334). The most original part of it, however, is the Nandi pavilion, which stands in the courtyard in front of the temple (Woodcut No. 333).[1] It is circular in plan, and its roof—which is a great slab of rock—was supported by sixteen square pillars of very simple form—four within and twelve in the circumference,—of which four have now crumbled and fallen. Altogether it is as appropriate a bit of design as is to be found in Hindû cave architecture. It has, however, the defect—only too common in those Hindû excavations—that, being in a pit, it can be looked down upon; which is a test very few buildings can stand, and to which none ought to be exposed.[2]

334. Temple of Panchâleswara near Poona. Scale 100 ft to 1 in.

[1] There is a similar temple at Âmbâ near Mominâbâd, in the Haidarâbâd State. 'Archæological Survey of Western India,' vol. iii p. 50, and plates 33, 34.

[2] 'Cave Temples of India,' p. 426 and plate 69

CHAPTER IV.

CENTRAL AND NORTHERN INDIA.

CONTENTS.

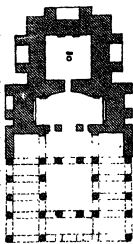
THERE are certainly more than one hundred temples in Central and Northern India which are well worthy of being described in detail, and, if described and illustrated, would convey a wonderful impression of the fertility in invention of the Hindû mind and of the elegance with which it was capable of expressing itself. None of these temples can make the smallest pretension to rival the great southern examples in scale; they are all, indeed, smaller even than the greater of Orissan examples, and while some of them surpass the Orissan temples in elegance of form, many rival them in the profuse elaboration of minute ornamental details

None of these temples — none, at least, that are now complete—seem to be of any great antiquity. At Eran, in the Sâgar district, are some fragments of columns, and several sculptures that seem to belong to the flourishing age of the Guptas, say about A.D. 450, and in the Mukandwârâ Pass in Kotâ, there are the remains of a chaultri that may be as old, but it is a mere fragment,[1] and has no inscription upon it.

Among the more complete examples, the oldest I know of, and consequently the most beautiful, is the porch or temple of *Sîtaleśvara* at Chandrâvatî, near Jhâlrâpathan, in Rajputana.[2] Assuming that it belongs to the early years of the 9th century, with the châwadî in the Mukandwârâ Pass, and the pillars at

[1] A view of this was published in my 'Picturesque Illustrations of Indian Architecture,' plate 5

[2] In its neighbourhood Colonel Tod found an inscription, dated 746 of an era, not named, which at one time I thought might have been taken from this temple, and consequently might give its date about A.D. 689, which would fairly agree with the style, judged from that of some of the caves at Elûrâ, which it very much resembles 'Picturesque Illustrations of Ancient Architecture in Hindostan,' plate 6, with description. Tod's 'Annals of Rajasthan,' vol. ii. p. 734. His translation, however, was worthless; the date is more probably of A.D. 824.—'Indian Antiquary,' vol. v. pp. 180f.

Eran, this Chandrâvatî fragment completes the list of what we at present can feel sure of having been erected before the middle of the 9th century. There are doubtless others, such as the temples at Pathâri and Tigowâ, that may be of even an earlier age, and it would be well they were examined, for this is one of the most elegant specimens of architecture of its period (Woodcut No. 335). It has not the poetry of arrangement of the Jaina octagonal domes, but it approaches very nearly to them by the large square space in the centre, which was covered by one of the most elegantly designed and most exquisitely carved roofs known to exist anywhere. Its arrangement is evidently borrowed from that of Buddhist vihâras, and it differs from them in style because their interiors were plastered and painted; here, on the contrary, everything is carved in stone[1] It is a Saiva shrine.

335 Temple at Chandrâvati
Scale 25 ft to 1 in.

Leaving these fragments, one of the oldest, and certainly one of the most perfect, in Central India is the desecrated temple at Baroli, situated in a wild and romantic spot not far from the falls of the Chambal, whose distant roar in the still night is the only sound that breaks the silence of the solitude around them The principal temple, represented in the Woodcut No. 336, may probably, pending a more precise determination, be ascribed to the 9th or 10th century, and is one of the few of that age now known, it was originally dedicated to Siva. Its general outline is identical with that of the contemporary Orissan temples. But instead of the astylar enclosed porch, or mandapa, it has a pillared portico of great elegance, whose roof reaches half-way up the temple, and is sculptured with a richness and complexity of design almost unrivalled, even in those days of patient prodigality of labour It will be observed in the plan (Woodcut No. 337) that the dimensions are remarkably small, and the temple is only 58 ft. high, so that its merit consists entirely in its shape and proportions, and in the elegance and profusion of the ornament that covers it.

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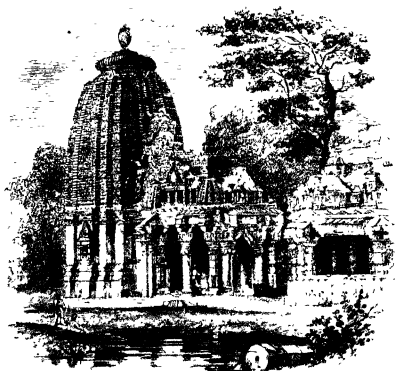
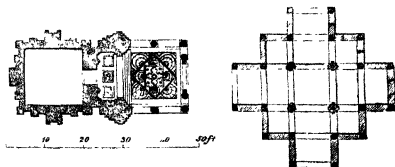
[1] Tod (vol. ii. pp. 733ff.), gives several plates of the details of the porch by a native artist—fairly well drawn—but wanting shadow to render them intelligible. Unfortunately we now learn that this monument had been repaired two or three years ago, with ugly masonry, plaster and whitewash. Such is what has to be expected wherever an ancient monument is repaired by Hindûs or entrusted to the ordinary engineer to clean.

In front of the temple is a detached porch, called a Châwadî or nuptial hall, similar to that in front of the temple at Mudherâ

336 Temple at Baroli (From a Drawing by the Author.)

337 Plan of Temple at Baroli (From Drawings by the Author.)

in Gujarât; in this tradition records the marriage of a Hûna (Hun) prince to a Râjputnî bride, for which purpose it is fabled

to have been erected;[1] but whether this is so or not, it is one of the finest examples of such detached halls known in the north. We miss here the octagonal dome of the Jains, which would have given elegance and relief to its ceiling, though the variety in the spacing of the columns has been attained by a different process. When the dome was first employed in Hindû architecture, they seem to have attempted to gain sufficient relief to their otherwise monotonous arrangement of columns by breaking up the external outline of the plan of the mandapa, and by ranging the aisles, as it were, diagonally across the building, instead of placing them parallel to the sides

Other two temples here, to the south of the preceding, are smaller but essentially of the same style, though more pointed in their form, and are consequently either more modern in date, or if of the same age—which may doubtless be the case—would bring the date of the whole group down to the 10th century, which, after all, may be their true date.

338 Pillar at Baroli. (From a Plate in Tod's 'Annals of Rajasthan.')

The larger of the two is known as the temple of Pârvatî, and in front of it, a little way from the great temple, were two pillars, one of which (still standing in 1873) is here represented[2] (Woodcut No 338). They evidently supported one of those torans, or archways, which succeeded the gateways of the Buddhist topes, and form frequently a very pleasing adjunct to Hindû temples. From the architraves of certain of these, the god was swung at certain festivals. They are, however, frail edifices at best, and easily overthrown, wherever the bigotry of the Moslims came into play.

[1] Tod's 'Annals of Rajasthan,' vol. ii. p. 712. For the legend of Râja Hûna and Pingalâ Rânî, see 'Indian Antiquary,' vol. ii. p. 215.

[2] For a photograph of this and of the two neighbouring temples, see 'Architecture and Scenery in Gujarat and Rajputana,' plate 22.

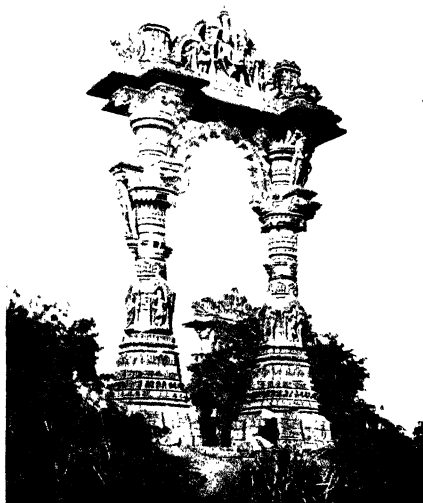
Kîrtti-stambha Gateways.

Toran gateways or Kîrtti-stambhas, as above remarked, were common adjuncts to Hindû temples as well as to Buddhist stûpas. The gateways at Sânchi and Bharaut are the earliest we can now point to; but of similar purpose, though of very different construction, were such gateways as those at Baroli and the four already mentioned at Worangal (vol. i., p. 435), which may belong to the 12th century. But there are others of the same character that may be here mentioned. The only one yet known in the Dekhan is at the ruined temple of Galaganâth, outside Aihole, which still retains the lintel supported by two massive square carved pillars, and from the style and carving may date from about A.D. 900, but if there ever was a pediment over the lintel it has totally disappeared

Of more ornate style is one at Pathâri, in the Gwâliar territory, about 11 miles south-east from Eran, where are also many remains of great antiquity and interest. It stands in front of an old temple called Gâdarmar. The shafts of the pillars are sixteen sided with Gupta bases and capitals of the same pattern as the pillar from the Eran temple (Woodcut No 166). The brackets that support the toran arch—now lost—also bore female and animal figures on four sides, but these are mostly now lost. Above these brackets the pillars are circular, and support a large abacus on the inner projections of which rests the richly-carved lintel, which carries over its centre a circular stone or amalaśilâ, with lions on each of the end blocks.[1] It has had no pediment, and must belong to the age of the Gupta remains at Eran.

In front of the great Sûrya temple at Mudherâ in Gujarât there stood a fine Kîrtti-stambha gateway, but the whole of the pediment has fallen, and only the pillars, 24 ft. 6 in. high, remain standing of the structure erected in A.D. 1026. But, besides the arch at the Rudra Mahâlaya at Siddhapur, about 32 ft. in height, but now considerably injured, there are at Vadnagar, the ancient Ânandapur, two fine examples almost entire, about 35½ ft. in height. The photographic view (Plate XXIV.), will enable the reader to form an idea of the style of these Gujarât Kîrtti-stambhas They must have belonged to some large temple in this once notable sacred city. Another smaller but similar gateway, of nearly 23 ft. total height, stands above a

[1] 'Ancient Monuments, Temples, etc., of India,' plate 222; 'Journal Asiat. Soc. of Bengal,' vol. xvii. pp. 307ff.

PLATE XXIV

Kirtti-Stambha at Vadnagar

[*To face page* 136, Vol. II

kund or sacred tank at Kâpadvanj, about 60 miles south-south-east from the last.[1]

At Rewâ, the capital of Bâghelkhand, about 30 miles east from Satnâ railway station, is the most richly sculptured of all these gateways. It was brought from the ruins of Gûrgi-Masaun, an old deserted city, 12 miles east from Rewâ, and set up in front of the palace. It is about 11 ft. wide and 17 ft. to the underside of the lintel, which is of three superimposed blocks of a height of about 6 ft. 9 in. very richly carved, the middle course being perforated right through and showing the figures in full relief. The upper corner blocks and pediment—if ever they existed—are wanting. Like most of the others it is Brahmanical and is covered with figure sculptures of all sizes, largely female, with devatas and griffons.[2] It may probably belong to the end of the 12th century. There is still another gateway at Gyâraspur,[3] and the latest are perhaps those on the dam at Râjasamudra.

GWÂLIAR.

The oldest temple at Gwâliar is, doubtless, the small one on the road up to the fort, excavated in the solid rock and dedicated to Chaturbhuj or Vishnu. It bears two inscriptions stating that it was made by the governor of the fort in A.D. 875. It is only 12 ft. square, with a portico in front 10 ft. by 9 ft., supported on two advanced pillars. The roof is a truncated pyramid divided into small steps, resembling that on the Dhamnâr rock-temple, and in details like the Teli Mandir. This is crowned by a small modern dome.[4]

There are, however, in the fortress here, two very remarkable temples: one, known as the Sâs-Bahû, has been mistaken for a Jaina erection, but it is designated and dedicated to Padmanâbha or Vishnu[5] The first temple was finished apparently in A.D 1093,[6] and, though dreadfully ruined, is still a most picturesque fragment. What remains is the cruciform porch of a temple which, when complete, measured 100 ft. from front to rear, and 63 ft. across the arms of the porch. Of the sanctuary, with its *sikhara*, nothing is left but the foundation;

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[1] 'Archæological Survey of Western India,' vol. ix., pp. 67, 79, 84, and plates 44, 49, 57, and 59; vol. viii. p. 94 and plate 82.

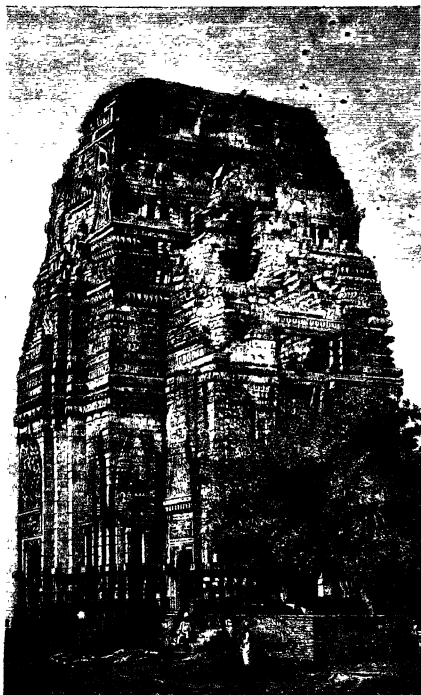
[2] L. Griffin's 'Famous Monuments of Central India,' plates 87-89; Cunningham's 'Reports,' vol. xix. p. 80 and plate 19.

[3] Cunningham, 'Reports,' vol. x. p. 33.

[4] 'Epigraphia Indica,' vol. i. pp. 154f.; Cunningham, 'Archæological Reports,' vol. ii. pp 335, 355; and Sir L Griffin, 'Famous Monuments of Central India,' plate 39.

[5] Râjendralâl Mitra who translated the inscription read 'Padmanâtha' and tried to identify the name with Padmaprabhanâtha the 6th Tîrthankara.—Cunningham, 'Archæological Reports,' vol. ii. p. 357.

[6] 'Indian Antiquary,' vol. xv. p. 36.

339. Sâs-Bahû Temple at Gwaliar. (From a Photograph.)

but the porch, which is three storeys in height, is constructively entire, though its details—and principally those of its roof—are very much shattered (Woodcut No 339).

An older temple is described by General Cunningham,[1] but, as it was used as a mosque, there is too little of the original structure left to show the character of the design. A mutilated inscription was dated in A.D. 1108, and several Jaina images were found in the substructure.

At the same place there is another, bearing the not very dignified name of the Teli-ka-Mandir, or Oilman's Temple (Woodcut No 340) It is a square of 60 ft. each way, with a portico on the east projecting about 11 ft. Unlike the other temples we have been describing, it does not terminate upwards in a pyramid, nor is it crowned by an amalaka, but in a ridge of about 30 ft. in extent, which may originally have had three amalakas upon it I cannot help believing that this form of temple was once more common than we now find it There are several examples of it at Mâmallapuram (Woodcut Nos. 185, 193, 194), evidently copied from a form common among the Buddhists, and one very beautiful example is found at Bhuvaneswar,[2] there called Kapila Devi, and dedicated to Siva The Teli-ka-Mandir was originally dedicated to Vishnu, but there is no inscription or any tradition from which its date can be gathered; on the whole, however, we may place it about the 10th or 11th century[3]

KHAJURÂHO.

As mentioned above, the finest and most extensive group of temples belonging to the Northern or Indo-Aryan style of architecture is that gathered round the great temple at Bhuvaneswar. They are also the most interesting historically, inasmuch as their dates extend through four or five centuries, and they alone consequently enable us to bridge over the dark ages of Indian art From its remote situation, Orissa seems to have escaped, to some extent at least, from the troubles that agitated northern and western India during the Middle Ages; and though from this cause we have as yet few remains in Central India except the Chaturbhuj rock-temple at Gwâliar, to fill up the gap between Chandrâvatî and Gwâliar, in Orissa the series is complete, and, if properly examined and described, would afford a consecutive history of the style from say 800 to 1100 or 1200 A.D.

[1] Cunningham, *ut supra*, plate 90 and pp 362, 363.

[2] A view of this temple will be found in my 'Picturesque Illustrations of Indian Architecture,' plate 4.

[3] Sir L. Griffin, 'Famous Monuments,' *ut supra*, pp. 62-69, and plate 40.

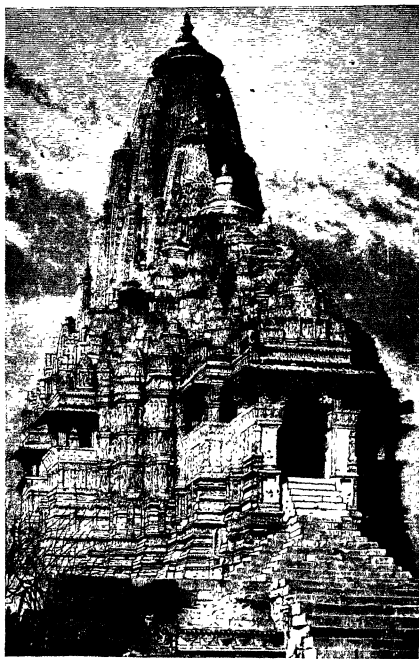
Next in interest and extent to the Bhuvaneswar group is that at Khajurâho, the old capital of the Chandellas, in Bundelkhand, as before mentioned[1] (p. 49). At this place, about 150 miles south-east from Gwâliar, there are now to be found some thirty important temples, all of which, with the exception of the Chausath Joginî and the Ganthai, described when treating of Jaina architecture, are of nearly the same age. Nor is it difficult, from their style and from the inscriptions, to see what that age was. The inscriptions range from A.D. 954 to A D. 1002;[2] and though it is not always clear to what particular temple they apply, we shall not probably err much if we assign the whole twenty-eight temples enumerated to the century beginning 950 and ending 1050, with a margin of a few years either way What renders this group more than usually interesting is, that the Khajurâho temples are divided between the three great Indian religions about one-third being Jaina, one-third Vaishnava, and the remainder Saiva; and all being nearly contemporary, it conveys an impression of toleration that prevailed at that period. In each group there is one or more larger temples with smaller ones scattered about. In the Saiva class it is the Khandarya Mahâdeva, and in the Vaishnava series it is the Chaturbhuja or Râmachandra

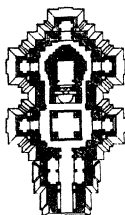
A curious result of this toleration or community of feeling is, that the architecture of all the three groups is so similar that, looking to it alone, no one could say to which of the three religions any particular temple belonged. It is only when their sculptures are examined that their original destination becomes apparent, and even then there are anomalies which it is difficult to explain. A portion, for instance, of the sculptures of the principal Saiva temple—the Kandarya Mahâdeva—are of a grossly indecent character;[3] which is understood to be comparatively rare in Saiva temples, but not unusual on Vaishnava shrines. But here the fact may be added to many others to prove how mixed together the various sects were even at that time, and how little antagonistic they then were to each other.

The general character of these temples may be gathered from the annexed representation (Woodcut No. 341) of the great Saiva temple, the Kandarya Mahâdeva. As will be seen from the plan (Woodcut No. 342), it is 109 ft. in length, by 60 ft.

[1] We are indebted to Gen Cunningham for most of our information about this place, and it is from his 'Reports' and from photographs that the following account has been chiefly compiled.—'Archæological Reports,' vol. ii. pp. 412-438; vol. vii. pp. 41, 42. 55-58; vol. x. pp. 16-213 and vol. xxi. pp. 55 69. Ten photographs of the temples are given in Griffin's 'Famous Monuments,' plates 48-57

[2] 'Epigraphia Indica,' vol. i. pp. 121-153.

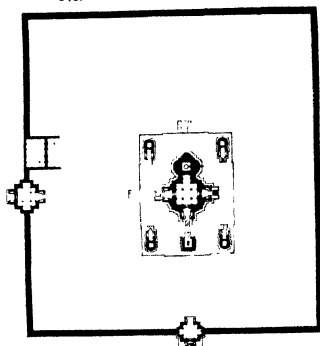
[3] Cunningham, 'Archæological Survey Reports,' vol. ii. p. 420.

341. Kandarya Mahâdeva temple, Khajurâho (From a Photograph.)

in breadth over all, and externally rises 116 ft. above the ground, and 88 ft. above its own floor. Its basement, or perpendicular part, is, like all the great temples here, surrounded by three rows of sculptured figures. General Cunningham counted 872 statues on and in this temple, ranging from 2½ ft. to 3 ft. in height, or about half life-size, and they are mixed up with a profusion of vegetable forms and conventional details which defy description. The vimâna, or tower, it will be observed, is built up of smaller repetitions of itself, which became at this age one of the favourite modes of decoration, and afterwards an essential feature of the style. Here it is managed with singular grace, giving great variety and play of light and shade, without unnecessarily breaking up the outline. The roof of the porch, as seen in front, is a little confused, but as seen on the flank it rises pleasingly step by step till it abuts against the tower, every part of the internal arrangement being appropriately distinguished on the exterior.

342. Plan of Kandarya Mahâdeva, Khajurâho (From a Plan by Gen Cunningham.) Scale 50 ft. to 1 in

If we could compare the design of the Gwâliar temple (Woodcut No. 339) with that of this building, we cannot but admit that the former is by far the most elegant, but on the other hand the richness and vigour of the Mahâdeva temple redeems its want of elegance and fascinates in spite of its somewhat confused outline. The Gwâliar temple is the legitimate outcrop of the class of temples that originated in the Great Temple at Bhuvaneswar, while the Kandarya Mahâdeva exhibits a complete development of that style of decoration which resulted in continued repetition of itself on a smaller scale to make up a complete whole. Both systems have their advantages, but on the whole the simpler seems to be preferable to the more complicated mode of design.

SINNAR, AMBARNÂTH, AND UDAYAPUR.

The examples already given will perhaps have sufficed to render the general form of the Indo-Aryan temple familiar to the reader, but as no two are quite like one another, their variety is infinite. There is one form, however, which became very fashionable about the 11th century, and continued to a much later date, and is so characteristic that it deserves some illustration.

A fairly representative example occurs in the temple of Gondesvara at Sinnar, about 18 miles from Nâsik. The plan, (Woodcut No. 343), and the view, Plate XXV., will illustrate the

343. Temple of Gondesvara at Sinnar, Scale 100 ft to 1 in.

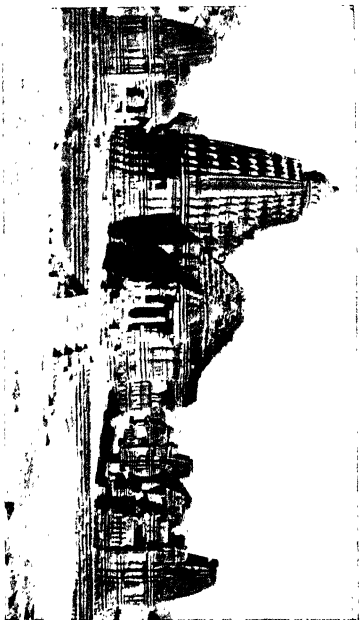
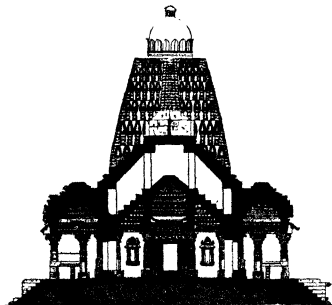
arrangement and style of the temple, which belongs probably to the early part of the 12th century. About the 11th century a Yâdava dynasty of petty kings seems to have ruled over the present Nâsik district, and possibly had a seat here[1] To them the erection of this temple is ascribed. It stands, outside the town, in a walled enclosure measuring inside 284 ft. from north to south by 314 ft from east to west, with entrance gateways on the east and south It is placed on a raised platform, 124 ft by 94 ft, with the Nandi pavilion in front and four small shrines at the corners.[2] Except the crowning members of the sikhara, and the porches, the temple

[1] 'Indian Antiquary,' vol xii pp 119-129; 'Epigraphia Indica,' vol. ii., pp 217, 225; and vol. vii, Appendix, p 56.

[2] This arrangement is called a 'Saiva-Panchâyatana', the small shrine on the north west is dedicated to Ganesa, that on the north-east to Nârâyana, that on the south-east to Sûrya, and on the south-west to Pârvatî or Mahishâsuri-mardanî.

PLATE XXV.

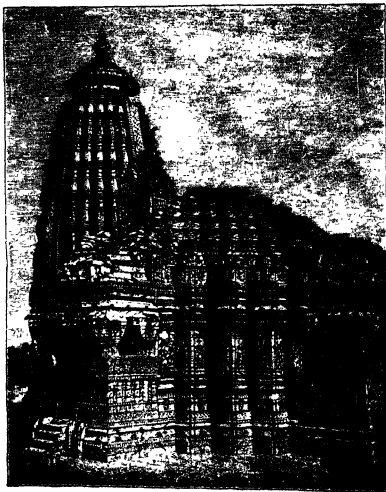
Sinnar Temple of Gondesvara from the South

[To face page 144 Vol II

is in good preservation.[1] The mandap is 21 ft. 9 in. square with four highly sculptured pillars and respondent pilasters supporting the roof, which is of somewhat peculiar construction, as indicated in the section (Woodcut No. 344). The central square area is carried up as a dome to a height of 19 ft. richly carved; and the surrounding aisles have sloping roofs, also

344. Cross-section of Gondesvara Temple at Sinnar.
Scale 20 ft to 1 in

elaborately sculptured, whilst the front and side porches are in keeping with rich carving.

The shrine with its sikhara, as will be seen from the plan and view, have the largest dimension through the centres of the opposite faces, the corners being suppressed by a series of smaller angles crossing them. The spire has then a band carved in fine diaper pattern on each face running up to its summit, and the flanks are ornamented in a way not met with in earlier temples, and differing from both the Northern and the Chalukyan styles. The whole contrasts with the older form illustrated by the surrounding smaller temples (seen in Plate No. XXV.). All the outer walls of the temple are covered

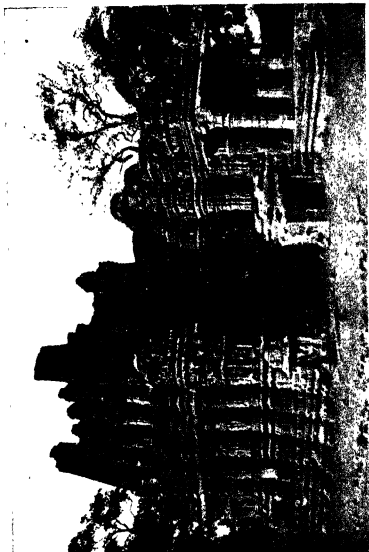
[1] The modern Marâthi finial placed on the tower may be a rude imitation of the sort of globe that crowned some of the Indo-Aryan temples, *e.g.*, that of Galaganâth at Pattadakal. (*Ante*, Woodcut No. 309); compare Woodcut No. 345 It has recently been replaced by a final copied from another similar temple.

with carving of great delicacy, in which figure sculpture is kept comparatively subordinate? The outer roof bears a trace of its descent from early Chalukyan temples.[1] The four small shrines are in the usual Indo-Aryan style and richly sculptured.

345. Temple at Udayapur, in Gwâliar territory

[1] The section, Woodcut No. 344, from Mr H Cousen's survey drawing, shows the roof as hollow or double This is the case in all these structures, and indeed in most Hindû temples. But as access could not be had to the interior in this case the representation is conjectural, but founded on the example of the Ambarnâth temple.—'Indian Antiquary,' vol. III. p. 316, 2nd and 3rd plates.

PLATE XXVI

Amaranath Saiva Temple, near Kalyan

[To face page 147, Vol II]

Another example, fortunately in a more perfect state, is at a place called Udayapur, about 40 miles north-north-east from Bhilsâ in the Gwâliar territory. As will be seen from the woodcut (No. 345) the porch is covered, as at Sinnar, with a low pyramidal roof, placed diagonally on the substructure, and rising in steps, each of which is ornamented with vases or urns of varying shapes. The tower is ornamented by four flat bands, of great beauty and elegance of design, between each of which are thirty-five little repetitions of itself, placed one above the other in five tiers, the whole surmounted by an amalasilâ, and a vase of very elegant design. As every part of this is carved with great precision and delicacy, and as the whole is quite perfect at the present day, there are few temples of its class which give a better idea of the style than this one. From an inscription copied in 1840, and translated by a pandit, it was believed that this temple was erected in A.D. 1059; but though the inscription is of doubtful value, other inscriptions prove that Udayâditya Pramâra was ruling in 1080,[1] and the style points to the latter part of the 11th century.

At Kalyân, near Bombay, there is a temple called Ambarnâth very similar to this, drawings and casts from which were made by orders of the Bombay government, in 1869.[2] It is, however, in a very ruinous state, and even when perfect could never have been equal to this one at Udayapur, and to many others in the Presidency. In it there is an inscription, dated in the Saka year 982, or A.D. 1060.[3] It thus accords in age with all else we know of the style.

It measures about 84 ft. in length over all by 61 through the side porches, and consists of a cella and a mandap, 23 ft. square, the roof of the hall supported by four richly sculptured pillars, with a small dome in the middle, as at Sinnar, and all the ceiling elaborately carved. There are entrance porches on three sides — each with a lobby in the depth of the walls which are 11 ft. 8 in. thick at these points. A stair descends into the shrine, which is 13 ft. square, its floor being 7 ft. 9 in. below that of the mandap—which is an exceptional arrangement in Saiva temples,—though several instances occur. The temples also mostly face the east, this one the west. The richness of its exterior may be judged of from the photographic illustration (Plate XXVI.). Unfortunately it is now in a very ruinous condition.

[1] 'Journal of the Asiatic Society of Bengal,' vol. ix. p. 548; 'Journal of the American Oriental Society," vol. vii. p. 53; Duff's 'Chronology of India,' p. 131 and refs.

[2] A portion of the casts are in the South Kensington Museum. Transcripts from fifteen of the drawings were published in the 'Indian Antiquary,' vol. iii. (1874), pp. 316ff.

[3] 'Journal of Bombay Br. Royal Asiatic Society,' vol. xii. p. 329.

Hemâdpantî temples, as they are called, are pretty numerous in Berâr, the central districts of the Bombay Presidency and the northern parts of the Haidarâbâd territory—districts that belonged to the Devagiri kingdom of the 12th and 13th centuries, to which they seem mostly to belong. But the style is found to have prevailed far beyond the limits of that state, and even at an earlier date. From the later temples at least, in Berâr and Khandesh, the mythological representations on the outer walls had disappeared, and geometrical carvings had taken their place. Only upon the older ones—usually much ruined—as at Lonâr, do we find bands of figure sculpture round the mandap.[1]

NÂGDÂ.

Near the great temple of Eklingajî, about 12 miles north from Udaypur, is a group of scarcely known temples, that seem to range from the 12th century, if not earlier, to the 15th. They are on the western margin of the Bâghelâ-talâo, a large artificial lake, and belong to the remains of the ancient city of Nâgdâ or Nâgahrad, extending for about a mile in length. The temples are of white marble and belong to both the Jaina and Hindû religions, and form one of the most remarkable series on this side of India. Though the place is quite deserted and the temples much dilapidated, and whilst the sculptures have in many cases been much mutilated, they are of great beauty, and compare not unfavourably with those at Âbû.[2] The finest here are two Vaishnava temples, known as Sâs-bahû,[3] standing, with other smaller shrines, on a raised platform or terrace. Below the terrace on the east is a handsome swing *torana* with four pillars in line. This is in front of the Bahû temple, which is the smaller and plainer of the two. Its mandap or portico is open and square, with extensions on the three sides, from which project the entrances, and is surrounded by a low screen wall on which stand fourteen short pillars supporting the roof,

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[1] Forty years ago Major Gill made a tour through parts of West Berâr, photographing the Hemâdpantî temples at Sâkegâon, Jaypur-Kotli, Amdâpur, Sirpur, Mehkar, Sendurjana, Lonâr, Dhotrâ and Sâtgâon. I expanded his brief notes for him into a somewhat detailed account; this he somewhat abridged and altered, and it was then printed in the 'Proceedings of the Asiatic Society of Bengal,' Feb. 1873, pp. 66-71. These abridged notes were used in the 'Lists of Antiquarian Remains in Bombay Presidency' (1885), pp. 226-241.

[2] The editor paid a very hurried visit to them early in 1873 —'Architecture and Scenery in Gujarat and Rajputana,' pp. 28, 29, and plates 15, 16. Dr Le Bon, during his tour in 1884, visited them, and published photographs of the Hindolâ torana or swinging arch, and three each of the Sâsu and Bahû temples, which he mistakenly calls 'Banka' and 'Sasouka' or 'Sahaskot' respectively.—'Les Monuments de l'Inde,' pp. 105-107, and figs. 111-118.

[3] 'Mother and daughter-in-law,' as at Gwâliar.

and so arranged that upon six of them—the inner pairs at each entrance—with two columns before the lobby of the shrine, the central dome rests. This is a somewhat exceptional but not altogether unusual arrangement. The shafts of the short pillars are 32-sided changing to round, and the two inner pillars are octagon below, then 16-sided and round above.

The dome is very richly carved and ornamented by eight female figures supported on brackets, whilst blocks over the pillars at the joinings of the lintels bear figures of the eight mâtrîs or divine mothers. The screen wall is elaborately sculptured outside in a bold clear style, and is in a fair state of preservation. The shrine walls are very plain, and the *s*ikhara is of brick—but of it the east face is ruined.

A small temple of Mahâdeva or *S*iva, facing the south, stands on the platform a few yards to the south-east of this, consisting of a porch with two advanced pillars, and the shrine surmounted by a low spire of early style covered with carving; but the front has partly fallen away.[1] There are also three or four other temples surrounding the Bahû temple.

The Sâsu temple is the larger of the two and its hall is closed, with a porch and doorway on the east and lattice windows in projecting bays—about 4 ft. 9 in. deep on the north and south sides—carved in a very elaborate and unusual style. The hall, exclusive of these recesses, is 23 ft. square inside, and its roof is upheld by four massive pillars of the style of those in Vimala's temple at Âbû, and in many old Hindû temples, as at Ambarnâth. These pillars are connected by heavy toran arches, and the central area is covered by a richly carved dome with four brackets on the sides that once supported dancing figures. The other compartments of the roof are filled with intricate sculptures, but all are much besmeared with smoke. The entrance and roof of the front porch are covered with carving, and by the sides of the doorway are perforated screens; but the outside of the shrine is very plain—only the niches on the west, north and south, respectively, have images of Vishnu, Brahmâ and *S*iva. The *s*ikhara and roof of the mandap are now mere heaps of brick. There is no image in the shrine nor any inscription to indicate the age of the temple, and it can only be tentatively ascribed to the 14th century: possibly it may be a little earlier and the Bahû shrine later.

There is another pair of Vaishnava temples here, the smaller of which is covered with carving and has a pretty torana close in front of the entrance which faces north. The hall is square, and the upper portion of its walls is carved in panels filled with geometrical patterns such as were used in Muhammadan

[1] 'Architecture of Gujarat and Rajputana,' plate 16, right side.

mosque and tomb windows in the 15th century and subsequently. There are also several Jaina temples among the ruins of Nâgdâ — one dedicated to Pârswanâth in 1429, and another called Adbudhajî's erected in 1437 in the reign of Kumbhakarna, and further, a number of others of somewhat smaller dimensions of which, like the preceding, the sculptures are much injured, as well as parts of the structures, but which are of considerable interest and some of them of architectural beauty and importance. But until we have detailed surveys of them, these temples cannot be satisfactorily described.[1]

CHITORGADH.

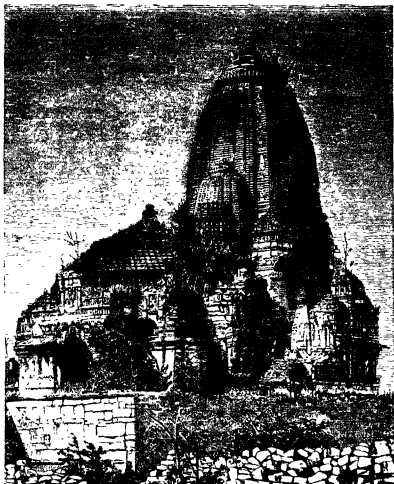
One other illustration must complete what we now have to say regarding these Indo-Aryan temples. It is one of the most modern of the style, having been erected by Mirâ Bâî, the wife of Kumbha Rânâ of Chitor (A.D 1418-1468). Kumbha was, as is well known, a patron of the Jains, in his time was erected the temple at Rânpur (Woodcut No. 288) and the Kîrtti-stambha at Chitor (Woodcut No. 296) But he was an orthodox Hindû, and here we find him and his wife erecting in their capital two temples dedicated to Vishnu. The king's temple, which is close by, is very much smaller than this one, for which his wife gets credit In plan, the only peculiarity is that the pradakshina, or procession-path round the cella, is here an open colonnade, with little pavilions at the four corners, and this is repeated in the portico in the manner shown in the annexed diagram (Woodcut No. 346).

346 Diagram explanatory of the Plan of Mirâ Bâi s Temple, Chitor No scale

The roof of the portico, in the form of a pyramid, is placed diagonally as at Udayapur, while the tower itself is of so solid and unbroken an outline, that it might at first sight be ascribed to a much earlier date than the 15th century (Woodcut No. 347). When, however, it is closely looked at, we miss the frequent amalaka bands and other ornamental features of earlier times, and the crowning members are more unlike those of ancient temples. The curve, too, of its outline is regular from base to summit, and consequently feebler than that of the older examples; but taking it all in all, it certainly is more like an ancient temple than any other of its age I am acquainted with. It was a revival, the last expiring effort of a style that was dying out, in that form at least

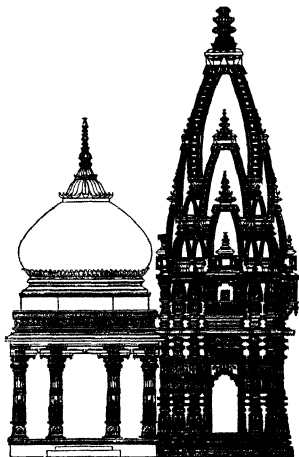
[1] The above is based on notes made in 1873, on Dr G Lebon's photographs, and on the photographs and brief notes in the report of Mr. D. R Bhândârkar in the 'Progress Report of the Archæological Survey of India, Western Circle' for 1904-1905.

VISVESWAR, BENARES.

If you ask a Brâhman of Benares to point out to you the most ancient temple of his city, he inevitably leads you to the

347 Temple of Vriji, Chitor (From a Photograph.)

Visveswar,[1] as not only the most holy, but the oldest of its sacred edifices. Yet it is known, and cannot be disputed, that the temple, as it now stands, was erected from the foundation in the 18th century, to replace one of Kîrtti Visveswar,

[1] Visveswara or Visvanâtha—"the lord of the universe" is the name under which Siva is worshipped at Benares.

that had been thrown down and desecrated by the bigot Aurangzib. This he did (in 1659) in order that he might erect on the most venerated spot of the Hindûs his mosque, whose tall minarets still rear their heads in insult over all the Hindû buildings of the city. As has already been remarked (page 87), there is hardly any great city in Hindustan that can show so few evidences of antiquity as Benares. The Buddhist remains now existing at Sârnâth hardly can be said to belong

348 Temple of Visveswar. (From Prinsep's 'Views in Benares.') No Scale.

to the city It must be remembered that the iconoclastic zeal of the Muhammadans was ever ready to burst forth against the fanes of Hindû idolatry. And after the defeat of Jayachandra of Kanauj, in 1194, Benares fell into the hands of Mu'izzu-d-

dîn Ghûrî, and the duty of the governor was to dispense Muhammadan law, and specially to repress idolatry. We can understand what this meant for the old shrines; and during the next 350 years, the city was repeatedly subjected to pillage. In the 15th century it was under the rule of the Sharqî rulers of Jaunpur, and in the later struggles between the Mughals and Afghâns it frequently suffered severely, and, in fact, till the time of Akbar the ostensible support of Hindûism was forcibly restrained. The city, as rebuilt after each disaster, apparently shifted its site in a south-westerly direction, probably helped to some extent by changes of the course of the river. And after such a history one could hardly expect to find many traces of its ancient architecture, though much may still be buried between the present city and Sârnâth. Even the temple of Kîrtti Visveswar, which Aurangzib destroyed, was not a very ancient structure. When desecrated it was the principal, and probably the most splendid, edifice of its class in the city. Now there is no material evidence that any important building now remaining was erected there before the time of Akbar (A.D. 1556-1605).

The present temple is a double one: two towers or spires almost exactly duplicates of each other. One of these is represented in the preceding woodcut (No. 348), and they are connected by a porch, crowned by a dome borrowed from the Muhammadan style, which, though graceful and pleasing in design, hardly harmonises with the architecture of the rest of the temple. The spires are each 51 ft. in height, and covered with ornament to an extent quite sufficient even in this style. The details too are all elegant, and sharply and cleanly cut, and without any evidence of vulgarity or bad taste; but they are feeble as compared with the more ancient examples, and the forms of the pyramidal parts have lost that expression of power and of constructive propriety which were so evident in the earlier stages of the art. It is, however, curiously characteristic of the style and place, that a building, barely 50 ft. in length, and the same in height, should be the principal temple in the most sacred city of the Hindûs, and equally so that one hardly 200 years old should be considered as the most ancient, while it is only that which marks this most holy spot in the religious cosmogony of the Hindûs.

TEMPLE OF SINDHIA'S MOTHER, GWÂLIAR.

One more example must suffice to explain the ultimate form which the ancient towers of the Orissan temples had reached in the 19th century. It was erected about forty years ago by the mother of Jayâjî Râo Sindhia, Mahârâja of Gwâliar

and to it was added a tomb or cenotaph either by herself or her son. As will be seen from the woodcut (No. 349) it is elegant, though feeble as compared with ancient examples. The Muhammadan dome appears in the background, and the curved Bengali roof in the pavilion in front. The most striking

349. Temple of Sindhia's Mother, Gwaliar (From a Photograph.)

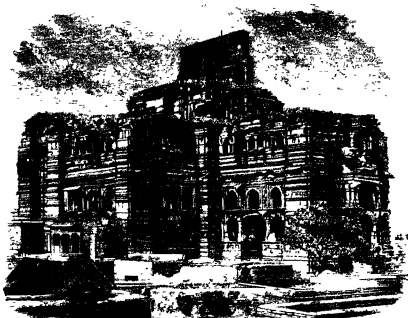
peculiarity of the style is that the sikharas have nearly lost the graceful curved form, which is the most marked peculiarity of all the ancient examples. As has already been remarked, the straight-lined pyramid first appears in the Takht-i-Sulaimân temple in Kashmîr, where its introduction was probably hastened by the wooden straight-lined roofs of the original

native style. It is equally evident, however, in a temple which Chait Singh, the Râja of Benares, erected at Râmnagar in the end of the 18th or beginning of the 19th century. Since that time the tendency has been more and more in that direction, and if not checked, the probability is that the curve will very soon be entirely lost. To a European eye, accustomed only to our straight-lined spires, that may seem hardly a matter for regret; but to any one educated in Eastern forms it can scarcely appear doubtful that these spires will lose half their charm if deprived of the graceful curved outline they have so long retained.

In order not to interrupt the story of the gradual development of the style, the history has been brought down to the present day in as nearly a consecutive manner as possible, thus anticipating the dates of several temples. It seems expedient, however, in any history that this should be done, for few things of its class are more interesting than to trace the progressive changes by which the robust form of the Parasurâmeswar temple at Bhuvaneswar, or of the great temple there, became changed into the feeble elegance of the Visveswar or Gwâliar temples. The few examples that can be adduced in such a work as this may not suffice to make this so clear to others as it is to myself With twenty or thirty examples it could be made self-evident, and that may one day be done, and this curious chapter in architectural history be thus added to the established sequences which every true style of art affords. Meanwhile, however, it is necessary to go back a little to mention one or two aberrant types which still are not without interest.

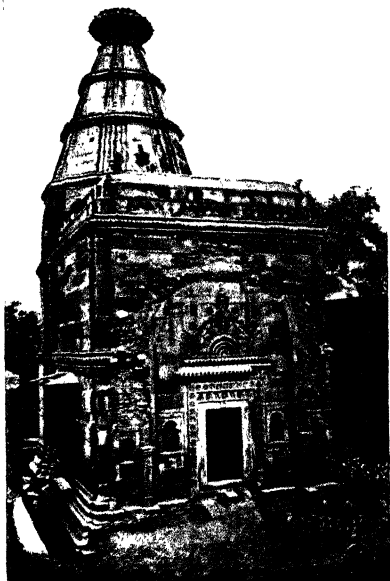
BRINDÂBAN.

Whether the Moslims wantonly threw down most of the temples of the Hindûs or not, it is evident that the first three centuries of Muhammadan rule in India were singularly unfavourable for the development of Hindû art in any part of the country where their rule was firmly established. With the tolerant reign of Akbar, however, a new state of affairs was inaugurated. Not only was he himself entirely devoid of religious bigotry, but most—or at least the most—eminent of his ministers and friends were Hindûs, and he lent an attentive ear to the Roman Catholic missionaries who frequented his court. But, besides its tolerance, his reign was marked by a degree of prosperity and magnificence till then unknown during that of any other Indian sovereign of his religion. Not only are his own buildings unrivalled in their extent and magnificence, but he encouraged all those around him to follow his example, and

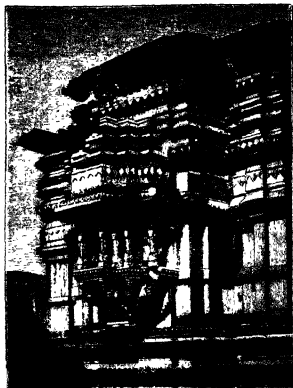
peculiar to this temple; but at Bhuvaneswar, Halebîd, and elsewhere, the whole surface is so overloaded with ornament as

351. View of Govind-deva Temple at Brindâban. (From a Photograph.)

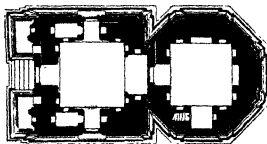
to verge on bad taste. Here the accentuation is equal, but the surfaces are comparatively plain, and the effect dependent on the elegance of the profile of the mouldings rather than on the extent of the ornamentation. Without elaborate drawings it would be difficult to convey a correct impression of this, but the view on next page (Woodcut No. 352) of a balcony, with its accompaniments, will suffice to illustrate what is meant. The figures might as well be omitted; being carved where Moslim influences had long been strong, they are the weakest part of the design.

There are other three temples at Brindâban, much in the same style and of the same period, but also much ruined. They were raised through the influence of the Gosains or disciples of Chaitanya and, consequently, all dedicated to Krishna under his various names—as Madan Mohan, Gopinâth, and Jugal Kishor. The erection of the last, represented on Plate XXVII., is referred to 1627, in the reign of Jahângîr. Its plan is given in Woodcut No. 353, but the outer porch has entirely disappeared, and what is left is only the ardha-

PLATE XXVII

Temple of Jugal Kishor at Brindaban

[*To face page* 157, Vol. II.

mandap and shrine. It faces the east, and the mandap, 17½ ft.

352. Balcony in Temple of Govind-deva, Brindâban (From a Photograph.)

square inside, has also entrances on the north and south, with

353. Temple of Jugal Kishor.[1] Scale 25 ft. to 1 in

closets in the side walls which are 5 ft. 9 in. thick. The cella is about 16 ft. square inside, with recesses for images; outside it is octagonal in plan with the angles broken up so as to make it almost circular. Above the level of the mandap roof the sikhara tapers upwards with three string

[1] From a drawing by the Archæological Survey of India.

courses, and is crowned by an amalasilâ.[1] It may be noted that the doors had all been arranged to slide back into slits provided in the walls.

The other vaulted temple, above alluded to, is that of Harideva, at Govardhan, 12 miles west from Mathurâ, and built by Râja Bhagwândâs of Amber, under the same tolerant influence during the reign of Akbar. It is a plain edifice 135 ft. long by 35 ft. in width externally, and both in plan and design singularly like those early Romance churches that are constantly met with in the south of France, belonging to the 11th and 12th centuries. If, indeed, the details are not too closely looked into, it might almost pass muster for an example of Christian art at that age,[2] while except in scale the plan of the porch at Brindâban bears a most striking resemblance to that of St Front at Perigeux.[3] The similarity is accidental, of course; but it is curious that architects so distant in time and place should hit so nearly on the same devices to obtain certain desired effects.

KÂNTANAGAR.

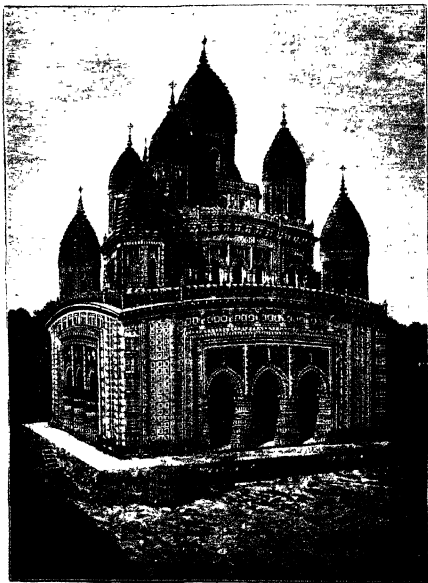
In addition to the great Indo-Aryan style of temple-building described above, there are a number of small aberrant types which it might be expedient to describe in a more extensive work; but, except one, none of them seem of sufficient importance to require illustration in a work like the present. The exceptional style is that which grew up in Bengal proper, and is practised generally in the province at the present day. It may have existed from an early date, but no very old examples are known, and it is consequently impossible to feel sure about this. Its leading characteristic is the bent cornice, copied from the bambu huts of the natives. To understand this, it may be as well to explain that the roofs of the huts in Bengal are formed of two rectangular frames of bambus, perfectly flat and rectangular when formed, but when lifted from the ground and fitted to the substructure they are bent so that the elasticity of the bambu, resisting the flexure, keeps all the fastenings in a state of tension, which makes a singularly firm roof out of very frail materials. It is the only instance I know of elasticity being employed in building, but is so singularly successful in attaining the desired end, and is so common, that we can hardly wonder when the Bengalis turned

[1] The Tower of the Madan Mohan temple is of the same form, but very richly carved. *Infra*, p 161, note 2

[2] Both the Govind-deva and Harideva temples are illustrated in Lieut. H. H Cole's 'Illustrations of Building near Muttra and Agra' (1873), to which and Growse's 'Mathura' (1880) the reader is referred.

[3] 'History of Ancient and Medieval Architecture,' 3rd ed. vol. ii. Woodcut No. 562, p. 64.

their attention to more permanent modes of building they should

354 Temple at Kantanagar. (From a Photograph.)

have copied this one. It is nearly certain that it was employed for the same purposes before the Muhammadan sovereignty, as

it is found in all the mosques at Gaur and Mâldâ; but we do not know of its use in Hindû temples till afterwards, though now it is extremely common all over northern India.

One of the best examples of a temple in this style is that at Kântanagar, 12 miles from the station of Dinâjpur. It was commenced in A.D. 1704 and finished in 1722.[1] As will be seen from the preceding illustration (Woodcut No. 354), it is a nine-towered temple, of considerable dimensions, and of a pleasingly picturesque design. The centre pavilion is square, and, but for its pointed form, shows clearly enough its descent from the Orissan prototypes, the other eight are octagonal, and their form suggests, as its origin, a number of bambus arranged in a circle or polygon, with their heads bent together and cords binding them horizontally at equal intervals.[2] The pointed arches that prevail throughout are certainly derived from Muhammadan originals, but the building being in brick their employment was inevitable.

No stone is used in the building, and the whole surface is covered with designs in terra-cotta, partly conventional, and these are frequently repeated, as they may be without offence to taste; but the bulk of them are figure-subjects, which do not ever seem to be repeated, and form a perfect repository of the manners, customs, and costumes of the people of Bengal at the beginning of the eighteenth century. In execution they display an immeasurable inferiority to the carvings on the old temples in Orissa or in Mysore, but for general effect of richness and prodigality of labour this temple may fairly be allowed to compete with some of the earlier examples.

There is another and more ornate temple, in the same style at Gopâl-ganj,[3] close to Dinâjpur, built in 1764, but in infinitely worse taste and now ruinous, and one known as the Black Pagoda, at Calcutta, and many others all through Lower Bengal; but hardly any so well worthy of illustration as this one at Kântanagar.

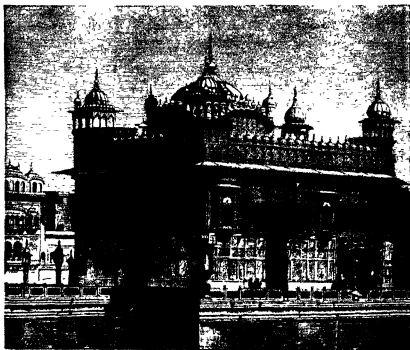
AMRITSAR.

One other example may serve for the present to complete what we have to say regarding the temples of modern India.

[1] Buchanan Hamilton, 'Eastern India,' edited by Montgomery Martin, 1837, vol. ii. p. 628. It is a Vaishnava temple.

[2] The turrets of these temples resemble somewhat the sikharas of Jugal Kishor and Madan Mohan at Brindâban (Plate XXVII.), which the Dinâjpur Mahârâja had visited just before building his Kântanagar temple. Examples of this form of construction, both for polygonal and square sikharas, are found among the later Jaina temples at Kundalpur in the Damoh district of the Central Provinces, at Sonâgarh (Woodcut No. 297), and at Khajurâho. — See Griffin's 'Famous Monuments,' plate 51; or G. Le Bon, 'Les Monuments de l'Inde,' p. 89, fig. 80

[3] Frontispiece to Buchanan Hamilton's 'Eastern India,' vol. ii. and pp. 626-627.

This time, however, it is no longer an idol-shrine, but a monotheistic place of prayer, and differs, consequently, most essentially from those we have been describing. The religion of the Sikhs appears to have been a protest alike against the gross idolatry of the Hindûs and the inflexible monotheism of the Moslims. It does not, however, seem that temples or gorgeous ceremonial formed any part of the religious system propounded by its founders. Reading the 'Granth' and prayer are what were

355. The Golden Temple in the Sacred Tank at Amritsar, from the north-east

insisted upon, but even then not necessarily in public. We, in consequence, know but little of their temples, of which they seem to have but few. Râmdâs, the fourth Sikh Guru, or high priest, obtained a grant of the site of Amritsar from the tolerant Akbar, dug the tank, which is 170 yds. square, and began the temple, which was completed by his successor, Arjun It was named Har-mandir, and stood in the middle of the tank; but Ahmad Shâh Abdâlî, on his return from Pânîpat in 1761, was opposed near Ludhiânâ by a Sikh army, which he signally defeated, and entering Amritsar blew up the Har-

mandir with gunpowder and desecrated all their sacred places. The temple was rebuilt in 1766, probably on the same plan as well as on the site of the former. It stands on a platform 67 ft. square, connected with the north side of the tank by a marble causeway 203 ft. in length; the temple itself—40 ft. 4 in. square—is of two storeys, with a room on the roof, covered by the dome. Ranjît Singh, after seizing the city in 1802, was too emulous of the wealth of his Hindû and Moslim subjects in this respect not to desire to rival their magnificence. He spent large sums on the Sikh temple, ornamenting its walls with marbles largely from Jahângîr's tomb, and roofing it with copper gilt, and consequently we have the Golden Temple in the Sacred Tank at Amritsar—as splendid an example of its class as can be found in India, though neither its outline nor its details can be commended (Woodcut No. 355).[1] It is useful, however, as exemplifying one of the forms which Indian temple-architecture assumed in the 19th century, and where, for the present, we must leave it. The Jains and Hindûs may yet do great things in it, if they can escape the influence of European imitation, but now that the sovereignty has passed from the Sikhs we cannot expect their priests or people to indulge in a magnificence their religion does not countenance or encourage.

At Nânder, on the Godâvarî, midway between Aurangâbâd and Haidarâbâd there is another Sikh Dehrâ or shrine Here Govind Singh, the tenth and last of their Gurus or pontiffs, was stabbed by a Pathân servant and died in 1708. It is built on the plan of the Amritsar temple, being of two storeys, with the dome, which is over the square room in the centre of the structure, raised a storey higher This inner room has silver plated doors on the four sides and contains the tomb, about which are arranged swords, spears, shields and steel discuses, that are worshipped by the Sikhs of the colony settled in the town, and by numerous pilgrims that visit the shrine, as having belonged to the Guru.[2] Round it is a corridor, as in many Muhammadan tombs, and the outer walls have a triple opening on each face, hung with curtains. In it the Granth is daily read and worshipped.

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[1] In Ranjît Singh's time the temple acquired its present Sikh name of 'Darbâr Sâhib.'

[2] Trumpp, 'Adi Granth,' introd. p. 96. The arrows of the Guru were carried to Amritsar after his death by his disciple Banda Bairâgî. A list of the Sikh Dehrâs and sacred places is given in 'Journa. Asiat. Soc. Bengal,' vol. xiv. pp. 394ff.

CHAPTER V.

CIVIL ARCHITECTURE.

CONTENTS.

Cenotaphs—Palaces at Gwâliar, Chitor, Amber, Dîg—Ghâts—Reservoirs—Dams.

CENOTAPHS

As remarked above, one of the most unexpected peculiarities of the art, as practised by the inhabitants of southern India, is the absence of any attempt at sepulchral magnificence. As the Dravidians were essentially builders, we might expect that they should show some respect for the memories of their great men. It is, however, even uncertain how far the cromlechs, dolmens, or sepulchral circles found all over the south of India can be said to belong to the Dravidians in a ruder stage of society, or whether they belong to some aboriginal tribes who may have adopted the language of the superior races without being able to change the instincts of their race. Even after they had seen how much respect the Muhammadans paid to departed greatness, they failed to imitate them in this peculiarity. It was otherwise in the north of India—not among the pure Aryans, but in the Râjput states, where blood is less pure, they eagerly seized the suggestion offered by Muhammadan magnificence in this respect, and erected chhatris on the spots where their bodies had been burnt. Where, too, their widows, with that strange devotion which is a trait in the Hindû female's character, had sacrificed themselves to what they conceived to to be their duty.

In Rajputana every native capital has its Mahâsatî, or place where the sovereigns of the state and their nearest relatives are burned with their wives. Most of these are appropriately situated in a secluded spot at some little distance from the town, and, the locality being generally chosen because it is rocky and well-wooded, it forms as picturesque a necropolis as is to be found anywhere. Of these, however, the most

magnificent, and certainly among the most picturesque, is that of Udaypur, the capital of Mewâr and the chief of the Râjput states still existing. Here the tombs exist literally in hundreds, of all sizes, from the little domical canopy supported by four columns to the splendid chhatri whose

356. Cenotaph of Sangram-Singh at Udaypur. (From a Photograph.)

octagonal dome is supported by fifty-six, for it has been the necropolis of the race ever since they were expelled from the ancient capital at Chitorgadh by Akbar in 1568. All are crowned by domes, and all make more or less pretensions to architectural beauty; while as they are grouped together as

accident dictated, and interspersed with noble trees, it would be difficult to point out a more beautiful cemetery anywhere. Among the finest is that of Sangrâm-Singh II., one of the most illustrious of his race, who was cremated on this spot, with twenty-one of his wives, in A.D. 1734. As will be seen from the preceding Woodcut (No. 356), it is a fifty-six pillared portico, with one octagonal dome in the centre (*vide ante*, vol. i.,

357. Cenotaph in the Mahâsati at Udaypur. (From a Photograph.)

Woodcut No. 179). The dome itself is supported on eight dwarf pillars, which, however, hardly seem sufficient for the purpose. The architect seems to have desired to avoid all appearances of

that gloom or solemnity which characterise the contemporary tombs of the Moslims, but, in doing this, to have erred in the other direction. The base here is certainly not sufficiently solid for the mass it has to support; but the whole is so elegant, and the effect so pleasing, that it seems hypercritical to find fault with it, and difficult to find, even among Muhammadan tombs, anything more beautiful.

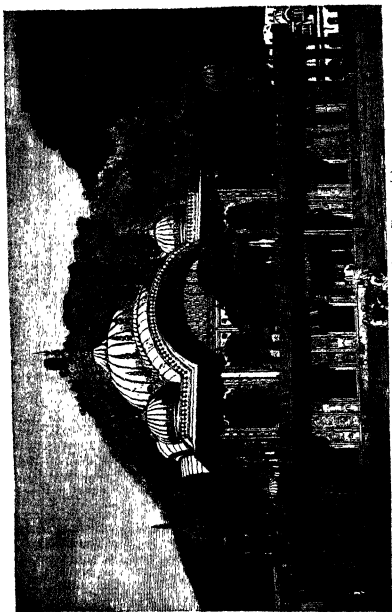
He it was, apparently, who erected the cenotaph to the memory of his predecessor Amara Singh II. (1699-1711). In style it is very similar to that last described, except that it possesses only thirty-two columns instead of fifty-six. It has, however, the same lofty stylobate, which adds so much to the effect of these tombs, but has also the same defect—that the dome is raised on eight dwarf pillars, which do not seem sufficient for the purpose.[1]

Woodcut No 357 represents a cenotaph in this cemetery with only twelve columns, which, *mutatis mutandis*, is identical with the celebrated tomb at Mylassa[2] The lofty stylobate, the twelve columns, the octagonal dome, and the general mode of construction are the same; but the twelve or thirteen centuries that have elapsed between the construction of the two, and the difference of locality, have so altered the details that the likeness is not at first sight easily recognisible From the form of its dome it is evidently more modern than that last described; it may, indeed, have been erected within the limits of the last century.

To the right of the same woodcut is another cenotaph with only eight pillars, but the effect is so weak and unpleasing that it is hardly to be wondered at that the arrangement is so rare The angle columns seem indispensable to give the design that accentuation and firmness which are indispensable in all good architecture.

These last two illustrations, it will be observed, are practically in the Jaina style of architecture; for, though adopting a Muhammadan form, the Rânâs of Udaypur clung to the style of architecture which their ancestors had practised, and which under Kumbha Rânâ had only recently become so famous. This gives them a look of greater antiquity than they are entitled to, for Udaypur was not the capital of the kingdom before the sack of Chitor in 1568; and nearly equally so that the Hindûs never thought of this mode of commemorating their dead till the tolerant reign of Akbar He did more than all that had been done before or since to fuse together the anta-

[1] A view of this cenotaph is given in my 'Picturesque Illustrations of Ancient Architecture in Hindostan,' plate 14.

[2] 'History of Ancient and Medieval Architecture,' 3rd ed. vol. i. Woodcut No. 242.

358. Tomb of Raja Bakhtawar Singh at Alwar. (From a Photograph.)

gonistic feelings of the two religions into at least a superficial similarity.

At Kotâ, about 50 miles N.N.W. from Jhâlrâpâthan, is a fine marble mausoleum erected in memory of the Mahârâo Umed Singh who died in 1819. It is of considerable size, and the taste shown in the rich surface decorations, as well as in the arrangement, is good. The style is more Muhammadan than Hindû, and the dome appears heavy for the supporting columns.[1]

Further north, where the Jaina style had not been used to the same extent at least as in the south-west, the Hindûs adopted quite a different style in their palaces and cenotaphs. It was much more of an arched style, and though never, so far as I know, using a true arch, they adopted the form of the foliated arch, which is so common in the palaces of Agra and Delhi, and in all the Mughal buildings In the palace at Dîg, and in the cenotaphs of Govardhan, this style is seen in great perfection. It is well illustrated, with all its peculiarities, in the preceding view of the tomb of Bakhtâwar Singh at Alwar, erected about 1815 (Woodcut No 358) To a European eye, perhaps the least pleasing part will be the Bengali curved cornices alluded to in the last chapter, but to any one familiar with the style, its employment gets over many difficulties that a straight line could hardly meet, and altogether it makes up with its domes and pavilions as pleasing a group of its class as is to be found in India, of its age at least The tombs of the Bharatpur Râjas, Randhîr Singh and Baldeva Singh, at Govardhan, with the earlier one of Sûraj Mal (about 1770) are similar to this one, but on a larger scale, and some of them being older, are in better taste; but the more modern ones avoid most of the faults that are only too characteristic of the art in India at the present day, and some of them are very modern One was in course of construction when I was there in 1839, and from its architect I learned more of the secrets of art as practised in the Middle Ages than I have learned from all the books I have since read. Another was commenced after the time of my visit, and it is far from being one of the worst buildings of its class. If one could only inspire the natives with a feeling of pride in their own style, there seems little doubt that even now they could rival the works of their forefathers.

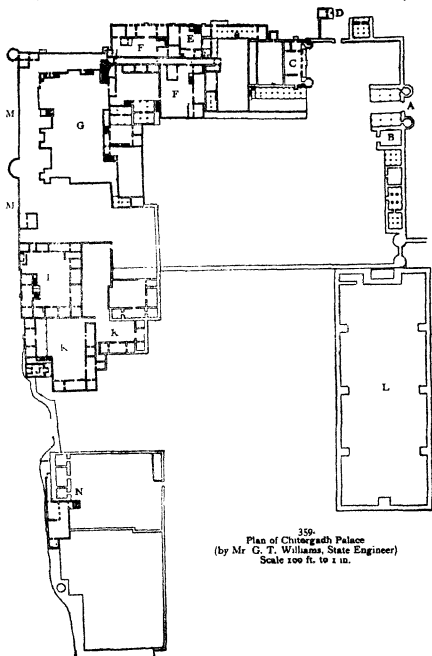
PALACES.

Another feature by which the northern style is most pleasingly distinguished from the southern, is the number and beauty of the palaces, which are found in all the capitals of the

[1] A view of this is given on plate 23 of 'Architecture, etc., in Gujarat and Rajputana.'

native states, especially in Rajputana. These are seldom designed with much reference to architectural symmetry or effect, but are nevertheless always picturesque and generally most ornamental objects in the landscape where they are found. As a rule, they are situated on rocky eminences, jutting into or overhanging lakes or artificial pieces of water, which are always pleasing accompaniments to buildings of any sort in that climate; and the way they are fitted into the rocks, or seem to grow out of them, frequently leads to the most picturesque combinations Sometimes their bases are fortified with round towers or bastions, on whose terraces the palace stands; and even when this is not the case, the basement is generally built up solid to a considerable height, in a manner that gives a most pleasing effect of solidity to the whole, however light the superstructure may be, and often is. If to these natural advantages you add the fact that the high caste Hindû is almost incapable of bad taste, and that all these palaces are exactly what they profess to be, without any affectation of pretending to be what they are not, or of copying any style, ancient or modern, but that best suited for their purposes—it will not be difficult to realise what pleasing objects of study these Râjput palaces really are At the same time it will be easily understood how difficult it must be in such a work as this to convey any adequate idea of their beauty; without plans explaining their arrangements, and architectural details of their interior, neither their elegance nor appropriateness can be judged of. A palace is not like a temple—a simple edifice of one or two halls or cells, almost identical with hundreds of others; but a vast congeries of public and private apartments grouped as a whole more for convenience than effect.

Few of the palaces of India have escaped the fate of that class of edifice all the world over. Either they must be deserted and left to decay, which in India means rapid obliteration, or they must be altered and modified to suit the requirements of subsequent occupants, till little if anything remains of the original structure. This fate, so far as is known, has overtaken all the royal abodes that may have existed before the dark ages; so much so, indeed, that no trace of them has been found anywhere Even after that we look in vain for anything important before the 13th century. At Chitorgadh, for instance, where one of the earliest Râjput dynasties was established, there are buildings that bear the name of the Palace of the Mori, also known as Ratnasingh's, but so altered, remodelled and ruined as to be unrecognisable as such.

At Chitor no building of this class can with certainty be

359.
Plan of Chitorgadh Palace
(by Mr G. T. Williams, State Engineer)
Scale 100 ft. to 1 in.

said to have existed anterior to the sack of the place by 'Alâu-d-Dîn in 1303. The so-called palace of Bhîm and Padminî, which remains perhaps unaltered, is a comparatively modern structure but small, with arched openings.[1] The ruined palace of Kumbha Rânâ (A.D. 1418-1468) in the same place is more grandiose, and shows some of that beauty of detail which characterises his buildings in general.[2]

The latter palace, of which Woodcut No. 359 represents the plan, may afford some idea of the arrangements of one of these residences The principal entrance (A), known as the Sûraj Pol or Sun-gate, leads into an open court, with a shed (B) for a rhinoceros and other rooms to the left of the gateway. Opposite the entrance is the Darîkhânâ, behind which is the Sûraj Gokhrâ (C), and to the right of it is an exit to (D) the Sringâr-chaurî Mandir or shrine. Along the wall from this are the stables (H), beside a shrine of Ganesa (E), which is close to the living apartments (F) of the palace, and near these is (G) the zanâna Outside this is a fortified wall (M,M), and a court separates the royal zanâna from (I) that of the heir-apparent, of whose palace (K,K) it forms part. Connected with his rooms is (J) a mandir or shrine, and outside this residence is also a large court divided off from the royal palace court, in an enclosure in a corner of which is a ruined dwelling (N), whilst on the opposite side of the court is (L) a large cistern.

The palaces at Chitor belonging to this dynasty were, however, far surpassed, in extent at least, by those which Udayasingh commenced at Udaypur, to which place he removed his capital after the third sack of Chitor by Akbar in 1568 It has not unfrequently been compared with the Castle at Windsor, and not inaptly, for both in outline and extent it is not unlike that palace, though differing so wonderfully in detail and in situation[3] In this latter respect the Eastern has the advantage of the Western palace, as it stands on the verge of an extensive lake, surrounded by hills of great beauty of outline, and in the lake are two island palaces, the Jag-newâs and Jag-mandir, which are more beautiful in their class than any similar objects I know of elsewhere.[4] It would be difficult to find any scene

[1] A view of it is given in Tod's 'Rajasthan,' vol i. plate 267. Some parts have been misunderstood by the engraver, but on the whole it represents the building fairly A photograph is given on plate 20 of 'Scenery and Architecture in Gujarat and Rajputana.'

[2] Two views of it are given in Rousselet, 'L'Inde des Rajahs,' pp. 232-233.

[3] G Le Bon's 'Monuments de l'Inde,' figs. 135-137.

[4] A view of one of these is given in Fergusson's 'Illustrations of Ancient Architecture in India,' plate 15. Other illustrations will be found in 'L'Inde des Rajahs,' at pp 185 *et seqq.*; and 'Scenery and Architecture in Gujarat and Rajputana,' plate 17.

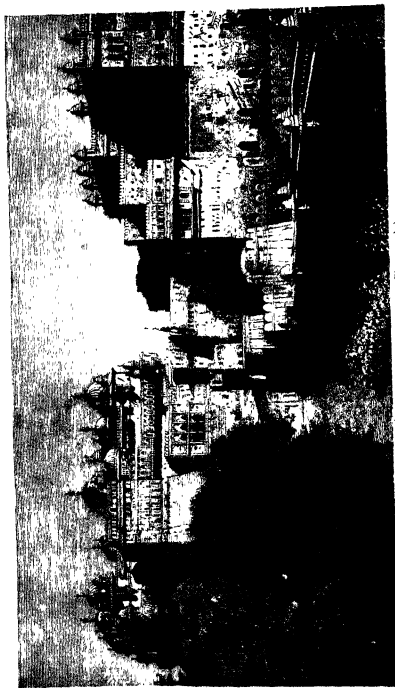
where art and nature are so happily blended together, and produce so fairy-like an effect. Certainly nothing I know of so modern a date equals it.

The palace at Bundi is of about the same modern age as that at Udaypur, and almost equals it in architectural effect. It is smaller, however, and its lake is less in extent, and has only temples standing on its islets, instead of palaces with their pavilions and gardens. Still, the mode in which it is placed on its hill, and the way in which its buildings gradually fade into the bastions of the hill above, are singularly picturesque even for this country, and the hills being higher, and the valleys narrower, the effect of this palace is in some respects even more imposing than that at Udaypur.

There are, however, some twenty or thirty similar royal residences in Central India, all of which have points of interest and beauty: some for their extent, others for their locality, and some for their beauty in detail, but every one of which would require a volume to describe in detail. Two examples,

360. Palace at Datiyâ. (From a Photograph.)

though among the least known, must at present suffice to illustrate their general appearance.

That at Datiyâ (Woodcut No. 360), in Bundelkhand, is a

361. Palace at Ûrchâ, Bundelkhand. (From a Photograph.)

large block of building over a hundred yards square, more regular than such buildings generally are, but still sufficiently relieved both in outline, and in the variety of detail applied to the various storeys, to avoid monotony, and with its gardens leading down to the lake and its tombs opposite, combine to make up an architectural scene of a singularly pleasing character. It was built about the beginning of the 17th century by Bîr-Singh Deva, the Bundelâ chief of Ûrchâ.[1] It is built of granite and is raised on a vaulted terrace about 40 ft. in height; the first two storeys extend over the whole area and their immense halls, with arched roofs supported by numerous pillars, are badly lighted, as they have windows only on the outer façades. The next two storeys are round a terrace or court-yard, in the middle of which rises a square tower of four storeys containing the family apartments, and crowned by the central dome rising perhaps 140 ft from the terrace[2]

The other palace is even less known, as it belongs to the Bundelkhand state of Ûrchâ (Woodcut No. 361), but is of a much more varied outline than that at Datiyâ, and with its domes and gateways makes up as picturesque a combination as can well be found anywhere. Built by the same Râja, it is too modern for much purity of detail, but that in a residence is less objectionable than it would be in a temple, or in an edifice devoted to any higher purpose.

GWÂLIAR.

Perhaps the most historically interesting of these Central Indian palaces is that of Gwâliar. The rock on which that fortress stands is of so peculiar a formation, and by nature so strong that it must always have been occupied by the chiefs of the state in which it is situated. Its temples have already been described, but its older palaces have undergone the fate of all similar edifices; it, however, possesses, or possessed, in that built by Mân Singh (A.D. 1486-1518), the most remarkable and interesting example of a Hindû palace of an early age in India. The external dimensions of this palace are 300 ft. by 160 ft, and on the east side it is 100 ft. high, having two underground storeys looking over the country. On all its faces the flat surface is relieved by tall towers of singularly pleasing design, crowned by cupolas that were covered with domes of gilt copper when Bâbar saw them in

[1] Bîr-Singh was employed by Jahângîr in 1602 to waylay and kill the famous Abu-l-Fazl, when returning to Akbar's court. His tomb is at Ûrchâ and is an enormous structure.

[2] Rousselet, 'L'Inde des Rajahs,' p. 391.

1527.[1] His successor, Vikrama Shâhi, added another palace, of even greater extent, to this one in 1518;[2] and Jahângîr and Shâh Jahân added palaces to these two, the whole making up a group of edifices unequalled for picturesqueness and interest by anything of their class that exists in Central India (Plate XXVIII.).[3] Among the apartments in the palace was one called the Bâradarî, supported on twelve columns, and 45 ft. square, with a stone roof, which was one of the most beautiful apartments of its class anywhere to be found. It was, besides, singularly interesting from the expedients to which the Hindû architect was forced to resort to imitate the vaults of the Moslims. They had not then learned to copy them, as they did at the end of that century, at Brindâban and elsewhere, under the guidance of the tolerant Akbar.

Of these buildings, which so excited the admiration of the Emperor Bâbar, probably little now remains. The Moslims added to the palaces of the Hindûs and spared the temples and the statues of the Jains; we have ruthlessly set to work to destroy whatever interferes with our convenience, and during the few years we occupied the fort, probably did more to disfigure its beauties, and obliterate its memories, than was caused by the Moslims during the centuries they possessed or occupied it. Better things were at one time hoped for, but the fact seems to be that subordinates and contractors are allowed to do as they please, and if they can save themselves trouble, there is nothing in India that can escape the effect of their unsympathising ignorance.

AMBER.

The palace at Amber, the original capital of the Jaypur State, ranks next after that of Gwâliar as an architectural

[1] Erskine's 'Memoirs of Baber,' p. 384.

[2] Cunningham's 'Archæological Reports,' vol ii. pp. 346 *et seqq.*, plates 87 and 88.

[3] We occupied the fort during the mutiny, and retained it long after. The first thing done was to occupy the Bâradari as a mess-room; to fit up portions of the palace for military occupation; then to build a range of barracks, and clear away a lot of antiquarian remains to make a parade ground. What all this means is only too easily understood. M. Rousselet—no unfriendly critic—observes: — "Les Anglais sont très-activement occupés à simplifier la besogne de l'archéologue, et à faire disparaître ce précieux document de l'histoire de l'Inde. Déjà toutes les constructions à la gauche de la porte de l'est sont livrées à la pioche, et le même sort est réservé au reste" ('L'Inde des Rajahs,' p. 362). And, again: "Mais, hélas! l'Ourwabaï lui aussi a vécu. Quand j'y revins en décembre, 1867, les arbres étaient coupés, les statues volaient en éclats, sous les pics des travailleurs, et le ravin se remplissait des talus d'une nouvelle route construite par les Anglais. talus dans lesquels dorment les palais des Chandêlas et des Touars, les idoles des Bouddhistes et des Jaïnas."—*Loc. cit.* p. 366.

PLATE XXVIII

Palace in Gwalior Fort, from the Ascent

[To face page 176 Vol II

object among the Râjput palaces. It is, however, a century more modern, having been commenced by another Mân Singh, who ascended the throne in 1592, and was completed by Jaysingh I. (1625-1666), who added the beautiful gateway which bears his name, Sawâî Jaysingh II. removed the seat of government to Jaypur in 1728.[1] In consequence of this more modern date it has not that stamp of Hindû originality that is so characteristic of the Gwâliar example, and throughout it bears a strong impress of that influence which Akbar's mind and works stamped on everything that was done in India during his reign. Its situation, too, is inferior to that of Gwâliar for architectural effect. Instead of standing on a lofty rocky pedestal, and its pinnacles being relieved boldly against the sky, the Amber palace is situated in a valley—picturesque, it is true, but where the masonry competes with the rocks in a manner which is certainly unfavourable to the effect of the building Nothing, however, can be more picturesque than the way in which the palace grows, as it were, out of a rocky base, or reflects itself in the mirror of the lake at its base, and nothing can be happier than the mode in which the principal apartments are arranged, so as to afford views over the lake and into the country beyond.

The details, too, of this palace are singularly good, and quite free from the feebleness that shortly afterwards characterised the style. In some respects, indeed, they contrast favourably with those of Akbar's contemporary palace at Fathpur Sîkrî. There the Moslim antipathy to images confined the fancy of the decorator to purely inanimate objects; here the laxer creed of the Hindûs enabled him to indulge in elephant capitals and figure-sculpture of men and animals to any extent. The Hindûs seem also to have indulged in colour and in mirrors to an extent that Akbar did not apparently feel himself justified in employing. The consequence is that the whole has a richer and more picturesque effect than its Muhammadan rival, but the two together make up a curiously perfect illustration of th architecture of that day, as seen from a Hindû, contrasted that from a Muhammadan, point of view[2]

t was the ame Mân Singh who erected a ghât and the rvatory Benares which still bears his name,[3] and

[1] Heber, by mistake, seems to have attributed the work of Jaysingh I. to his more illustrious descendant Sawâî Jaysingh II. 1698-1743.

[2] Jacquemont, 'Voyage dans l'Inde,' tome iii. pp. Heber's 'Journal,' vol. ii. pp. 39f. tecture, etc., in Gujarat and Rajputana,' pp. 46f., and pl. 30.

[3] A century later, his descendant Sawâî Jaysingh set up several of the instruments in it and built other observatories at Jaypur, Ujjain, Mathurâ and Delhi.—'Indian Antiquary,' vol. xxxv. (1906), p. 234, and references.

though not very architectural in its general appearance, has on the river-face a balconied window, which is a fair and pleasing specimen of the architecture of his age (Woodcut No 362). He also was the king who erected the temple at Brindâban, which has been illustrated above (pp 156, 157).

362 Balcony at the Observatory, Benares. (From a Drawing by the late James Prinsep)

DÎG.

All the palaces above described are more or less irregular in their disposition, and are all situated on rocky and uneven ground. That at Dîg, however, is on a perfectly level plain, and laid out with a regularity that would satisfy the most fastidious Renaissance architect. It is wholly the work of Sûraj - Mall, the virtual founder of the Bharatpur dynasty, who commenced it, apparently in 1725, and left it as we now see it, when he was slain in battle with Najaf Khân in Dec. 1763. It wants, it is true, the massive character of the fortified palaces of other Râjput states, but for grandeur of conception and beauty of detail it surpasses them all.

The whole palace was to have consisted of a rectangular enclosure twice the length of its breadth, surrounded with buildings, with a garden in the centre, divided into two parts by a broad terrace, intended to carry the central pavilion. Only one of these rectangles has been completed, measuring about

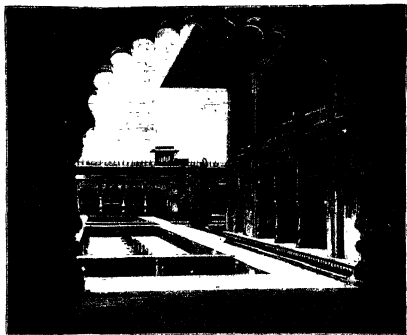
700 ft. square,[1] crossed in the centre by ranges of the most beautiful fountains and parterres, laid out in the formal style of the East, and interspersed with architectural ornaments of the most elaborate finish.

The pavilion on the north side contains the great audience-hall, 76 ft. 8 in. by 54 ft. 7 in., divided in the centre by a noble range of arcades, behind which are the principal dwelling apartments, two, and in some parts three, storeys in height. Opposite this is a pavilion occupied principally by fountains. On one side stands a marble hall, attached to an older palace facing the principal pavilion, which was meant to occupy the centre of the garden. As will be seen by the plan (Woodcut No. 363), it is a parallelogram of 152 ft. by 87 ft., each end occupied by a small but very elegant range of apartments, in two storeys; the central hall (108 ft. by 87 ft.) is supported on four rows of columns, and open at both sides; at each end is a marble reservoir for fountains, and a similar one exists externally on each side. The whole is roofed with stone, except the central part, which, after being contracted by a bold cove, is roofed with a flat ceiling of timber exquisitely carved. This wooden ceiling seems to have been considered a defect, nothing but stone being used in any other part of the palace. The architect, therefore, attempted to roof the corresponding pavilion of the unfinished court with slabs of stone 34 ft. in length, and 18 in. square. Some of these still exist in their places but their weight was too great for the arcades, which are only 18 in. thick, and not of solid stone, but of two facings 4 or 5 in. thick, and the intermediate spaces filled in with rubble. Besides this, though the form of the arch is literally copied from the Muhammadan style, neither here, nor elsewhere throughout the palace, is there a single true arch, the openings being virtually covered by two brackets meeting in the centre.

363. Hall at Dîg. (From a Plan by the Author). Scale 100 ft. to 1 in.

The general appearance of the arcades of these buildings may be gathered from the annexed view (Woodcut No. 364), and may be characterised as more elegant than rich. The glory of Dîg, however, consists in the cornices, which are generally double, a peculiarity not seen elsewhere, and which

[1] A plan of it is given in Lieut. Cole's 'Report on the Buildings near Agra,' (pp. 41-58 and eight plates), correct as far as it goes, but not complete.

for extent of shadow and richness of detail surpass any similar ornaments in India, either in ancient or modern buildings. The lower cornice is the usual sloping entablature, almost universal in such buildings. This was adopted apparently

364 View from the Central Pavilion in the Palace at Dîg (From a Photograph)

because it took the slope of the curtains, which almost invariably hang beneath its projecting shade, and which, when drawn out, seem almost a continuation of it The upper cornice, which was horizontal, is peculiar to Dîg, and seems designed to furnish an extension of the flat roof which in Eastern palaces is usually considered the best apartment of the house; but whether designed for this or any other purpose, it adds singularly to the richness of the effect, and by the double shadow affords a relief and character seldom exceeded even in the East.

Generally speaking, the bracket *arcades* of Dîg are neither so rich nor so appropriate as the bold bracket *capitals* of the older styles. That the bracket is almost exclusively an original Indian form of capital can, I think, scarcely be doubted; but the system was carried much further by the Mughals, especially during the reign of Akbar, than it had ever been carried by its

original inventors, at least in the North. The Hindûs, on receiving it back, luxuriated in its picturesque richness to an extent that astonishes every beholder; and half the effect of most of the modern buildings of India is owing to the bold projecting balconies and fanciful kiosks that diversify the otherwise plain walls.

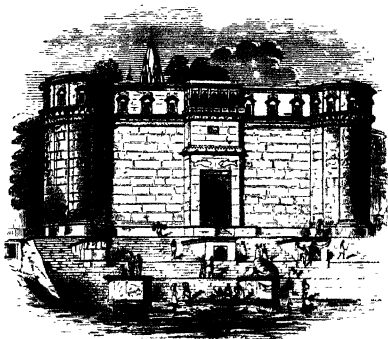
The greatest defect of the palace is that the style, when it was erected, was losing its true form of lithic propriety. The form of its pillars and their ornaments are better suited for wood or metal than for stone architecture; and though the style of the Mughals, in the last days of their dynasty, was tending in that direction, it never threw off the solidity and constructive propriety to such an extent as is done in these modern palaces of the Hindûs. It is not at Dîg carried so far as to be offensive, but it is on the verge of good taste, and in some more modern buildings assumes forms more suited for upholstery than for stone architecture.

Since the time when Sûraj-Mall completed this fairy creation, the tendency, not only with the Râjput princes, but the sovereigns of such states as Oudh, and even as Delhi, has been to copy the bastard style of Italian architecture we introduced into India. It was natural, perhaps, that they should admire the arts of a race who had shown themselves in war and policy superior to themselves; but it was fatal to their arts, and whether a revival is now possible remains to be seen.

GHÂTS OR LANDING-PLACES.

Another object of architectural magnificence peculiar to northern Hindustan, is the construction of the *ghâts* that everywhere line the river-banks in most of the great cities, more especially those which are situated on the Ganges. Benares possesses perhaps the greatest number of edifices of this class; but from Calcutta to Hardwâr no city is without some specimens of this species of architectural display. The Ghuslà Ghât at Benares (Woodcut No. 365), though one of the most modern, may be taken as a fair specimen of the class, although many are ric r and much more elaborately adorned. Their object being (afford easy access to bathers, the flight of steps in front is in reality the *ghât*, and the main object of the erection. These are generally broken, as in this instance, by small projections, often crowned by kiosks, which take off the monotony inherent in long lines of narrow steps. The flight of stairs is always backed by a building, which in most instances is merely an object of architectural display without any particular destination, except to afford shelter from the rays of the sun to such of the idle as choose to avail themselves of it. When

the bank is high, the lower part of these buildings is solid, and when, as in this instance, it is nearly plain, it affords a

365 Ghuslâ Ghât, Benares. (From Prinsep's Views.)

noble basement to an ornamental upper storey, with which they are generally adorned, or to the temple which frequently crowns them.

Though the Ganges is, *par excellence*, the river of ghâts, one of the most beautiful in India is that erected by Ahalyâ Bâî (Khânde Râo Holkar's widow) at Maheswar, on the Narbadâ, and Ujjain and other ancient cities almost rival Benares in this respect. Indeed, there is scarcely a tank or stream in all India that is without its flight of steps, and it is seldom indeed that these are left without some adornment or an attempt at architectural display, water being always grateful in so hot a climate, and an especially favourite resort with a people so fond of washing and so cleanly in their habits as the Hindûs. Of such there are abundant examples, such as the Kunda or pond before the Sûrya temple at Modherâ, the tanks at Vîramgâm, Kâpadvanj, and almost everywhere.

RESERVOIRS.

The same fondness for water has given rise to another species of architectural display peculiar to India, in the great reservoirs or *baolîs*, which are found wherever the wells are deep and water far from the surface. In design they are exactly the reverse of the ghâts, since the steps are wholly below the ground, and descend to the water sometimes even at a depth of 80 ft. or 100 ft. Externally they make no display, the only objects usually seen above ground being two pavilions to mark the entrance, between which a bold flight of steps, from 20 ft. to 40 ft. in width, leads down to the water. Facing the entrance is a great screen, rising perpendicularly from the water to the surface of the ground, and dividing the stairs from a circular shaft or well, up which the water is drawn by pulleys for agriculture, and for those who prefer that mode of obtaining it instead of descending the steps The walls between which the steps descend are ornamented by niches, and covered with galleries leading to the great screen. Where the depth is great, there is often one or more screens across the stairs dividing the way down.

To persons not familiar with the East such an architectural object as a baolî may seem a strange perversion of ingenuity, but the grateful coolness of all subterranean apartments, especially when accompanied by water, and the quiet shade of these recesses, fully compensate, in the eyes of the Hindû, for the more attractive magnificence of the ghâts. Consequently, the descending flights of which we are now speaking, have often been made more elaborate and expensive pieces of architecture than any of the buildings above ground found in their vicinity.[1]

DAMS.

In the same manner the *bânds* or dams of the artificial lakes, or great tanks, which are so necessary for irrigation, are often made works of great architectural magnificence, first by covering them with flights of steps, like those of the ghâts, and then erecting temples or pavilions, and kiosks, interspersed with fountains and statues in breaks between these flights. Where all these are of marble, as is sometimes the case in Rajputana, the whole make up as perfect a piece of architectural combination as any the Hindûs can boast of

One of the most beautiful of these is that erected at Râjanagar near Kânkroli, by Rânâ Râjasingh, who ascended the

[1] For examples of these baolîs or wâvs see 'Archæological Survey of Western India,' vol. viii. pp. 1-6, and 10-14, with plates 2, 3, 6, 13-16, 22 and 23; vol ix. pp. 37-38, 101, 112-113, and plates 3, 13, 80, and 104, 107.

throne of Udaypur in 1653, to form the lake of Râjasamudra (Woodcut No. 366), which is the second most extensive in his dominions. It was undertaken, too, as a relief work during the great famine of 1661. This band is about 1070 feet in

366. Band of Lake Râjasamudra. (From a Sketch by the Author.)

length, and wholly covered with white marble steps; and with its beautiful kiosks projecting into the water, and the old palaces which crown the hill at one end, it makes up a fairy scene of architectural beauty, with its waters and its woods, which is hardly surpassed by any in the East.[1]

It would be tedious, however, to enumerate, without illustrating them, which the limits of this work will not permit, all the modes of architectural magnificence of the Hindûs. Like all people untrammelled by rules derived from incongruous objects, and gifted with a feeling for the beautiful, they adorn whatever they require and convert every object, however utilitarian in its purposes, into an object of beauty. They long ago found out that it is not temples and palaces alone that are capable of such display, but that everything which man

[1] 'Architecture and Scenery in Gujarat and Rajputana,' pp. 25, 26 and photograph 13. Though not shown in the woodcut, but standing back at the head of an upper flight of steps, are four Kirtti-stambhas, of no great size, but adding to the pleasing character of the structure.

makes may become beautiful, provided the hand of taste be guided by sound judgment, and that the architect never forgets what the object is, and never conceals the constructive exigencies of the building itself.[1] It is simply this inherent taste and love of beauty, which the Hindûs seem always to have possessed, directed by unaffected honesty of purpose, which enables them to erect, even at the present day, buildings that will bear comparison with the best of those erected in Europe during the Middle Ages. It must be confessed that it would require far more comprehensive illustration than the preceding slight sketch of so extensive a subject can pretend to be, to make this apparent to others. But no one who has personally visited the objects of interest with which India abounds can fail to be struck with the extraordinary elegance of detail and propriety of design which pervades all the architectural achievements of the Hindûs; and this not only in buildings erected in former days, but in those now in course of construction in those parts of the country to which the bad taste of their European rulers has not yet penetrated.

[1] Even sluices were made artistic, as at Ahmadâbâd and elsewhere. —'Archæological Survey of Western India,' vol. vii pp. 50-53, and plates 63 and 65.

BOOK VII.

INDIAN SARACENIC ARCHITECTURE.

CHAPTER I.

INTRODUCTORY.

FROM a very early period in the world's history a great group of civilised nations existed in Western Asia between the Mediterranean and the Indus They lived apart, having few relations with their neighbours, except of war and hatred, and served rather to separate than to bring together the Indian and European communities which flourished beyond them on either hand

Alexander's great raid was the first attempt to break through this barrier, and to join the East and West by commercial or social interchanges. The steady organisation of the Roman empire succeeded in consolidating what that brilliant conqueror had sketched out. During the permanence of her supremacy the space intervening between India and Europe was bridged over by the order she maintained among the various communities established in Western Asia, and there seemed no reason why the intercourse so established should be interrupted. Unsuspected, however, by the Roman world, two nomad nations, uninfluenced by its civilisation, hung on either flank of this great line of communication, ready to avail themselves of any moment of weakness that might occur.

The Arabs, as the most impetuous, and nearest the centre, were the first to break their bounds; and in the course of the 7th century Syria, Persia, Egypt, and the north of Africa became theirs. Spain was conquered, and India nearly shared the same fate. Under Mu'âwiah, the first Khalîfah of the Umayyades, attempts were made to cross the Indus by the southern route — that which the Skythians had successfully followed a short time before. Both these attempts failed, but under Walid, Muhammad ibn Qâsim, A.H. 93 (A.D. 712), they did

effect a settlement in Sindh. It proved a barren conquest, however; for though a Muhammadan dynasty was established there, it soon became independent of the Khalîfat, and eventually died out.

The supremacy of the Khalîfat was as brief as it was brilliant. Its hour of greatest glory was about the year A.D. 800, in the reign of Hârûn *al*-Rashîd From that time decay set in; and after two centuries more the effeminacy and corruption inherent in Eastern dynasties had so far progressed as to encourage the Northern hordes to move.

During the course of the 11th century the Tartar hordes, who were hitherto only known as shepherds pasturing their herds on the steppes of Central Asia, made their appearance south of the Paropamisan range as conquerors; and for six centuries their progress was steadily onwards, till, in the year A.D. 1683, we find the Turks encamped under the walls of Vienna, and the Mughal Aurangzîb lord paramount of the whole of India Proper, while Egypt and all the intervening countries owned the rule of sovereigns of Turanian race.

The architecture of the nations under the Arab Khalîfat has been elsewhere described, and is of very minor importance.[1] The ruling people were of Semitic race, and had no great taste for architectural magnificence; and unless where they happened to govern a people of another stock, they have left few traces of their art.

With the Northern hordes the case was widely different; they were of Turanian blood, more or less pure, and wherever they went their mosques, and especially their tombs, remain to mark their presence, and to convey an idea of their splendour. In order to understand what follows, it is necessary to bear in mind that the Semitic conquest, from Mecca as a centre, extended from the mouths of the Guadalquivir to those of the Indus, and left but little worthy of remark in architecture. The Turanian conquest, from Bukhârâ and Balkh as centres, extended from Constantinople to Katak, and covered the whole intervening space with monuments of every class. Those of the west and centre have been described in speaking of Turkey and Persia,[2] the Eastern branch remains to be discussed, and its monuments are those of which this work purports to be a description.

The Saracenic architects showed in India the same pliancy in adopting the styles of the various people among whom they

[1] Egypt showed little taste for architectural display till she fell under the sway of the Mamlûk Sultâns, A.D. 1250, and Saracenic architecture in Persia practically commences with the Saljûqides, A.D. 1036.

[2] 'History of Ancient and Medieval Architecture,' 3rd ed. vol. ii. pp. 556ff.

had settled which characterised their practice in the countries just mentioned. It thus happens that in India we have at least twelve or fifteen different styles of Muhammadan architecture: and if an attempt were made to exhaust all the examples, it would be found necessary to enumerate even a greater number. Meanwhile, however, the following thirteen divisions will probably be found sufficient for present purposes:—

1. The first of these is that of *Ghaznî*, which, though not, strictly speaking, in India, had without doubt the most important influence on the Indian styles, and formed in fact the stepping-stone by means of which the architecture of the West was introduced into India, and it long remained the connecting link between the styles of the Eastern and those of the Western world It would consequently be of the greatest importance in enabling us to understand the early examples of the style in India Proper, if we could describe this one with anything like precision, but for that we must wait till some qualified person visits the province.

2. Next to this comes the *Pathân* style of northern India (A.D 1193-1554), spreading over the whole of Upper India, and lasting for about three centuries and a half. After the death, however, of 'Alâu-d-Dîn Muhammad Shâh I. (A D. 1316) the central power was at times so weak, that the recently conquered outlying provinces were frequently enabled to render themselves independent, and, when this was the case, exhibited their individuality everywhere, by inventing a style of architecture expressive of their local peculiarities.

3. One of the first to exhibit this tendency was the brilliant but short-lived Sharqî dynasty of *Jaunpur* (A D. 1394-1476). Though existing for less than a century, they adorned their capital and other cities with a series of mosques and other buildings which are hardly surpassed by those of any city and district in India for magnificence, and by none for a well-marked individuality of treatment.

4. The style adopted by the kings of *Gujarât* during their period of independence (A.D. 1396-1572) was richer and more varied than that of Jaunpur, though hardly so original or marked by such individuality. They borrowed too much, physically as well as intellectually, from the architecture of the Hindûs and Jains, among whom they were located, to be entirely independent; but the richness of their style is in proportion to the Hindû details they introduced.

5. *Mâlwâ* became independent in A.D. 1401, and between that date and A.D. 1569, when they were absorbed in the Mughal empire, her kings adorned their capital at Mandû with palaces and mosques of great magnificence, but more

similar to the parent style at Delhi than the two last-named styles, and wanting, consequently, in local individuality.

6. Bengal was early erected into a separate kingdom—in A.D. 1203—more or less independent of the central power; and during its continuance—till A.D. 1573—the capitals, *Gaur* and *Mâldâ*, were adorned with many splendid edifices. Generally these were in brick, and are now so overgrown by jungle as to be either ruined or nearly invisible. They are singularly picturesque, however, and display all the features of a strongly-marked individuality of style.

These six divisions are probably sufficient to characterise the Muhammadan styles north of the Narbadâ. To the south of that river there are three well-marked styles.

7. First that of the *Bahmanî* dynasty. First at Kulbarga, A.D. 1347, and afterwards at Bîdar, A.D. 1426, they adorned their capitals with edifices of great magnificence and well-marked individuality, before they were absorbed, in A.D. 1525, in the great Mughal empire.

8 Next to these was the still more celebrated 'Âdil Shâhî dynasty of *Bijâpûr* (A.D. 1490-1660). Their style differed most essentially from all those above enumerated, and was marked by a grandeur of conception and boldness in construction unequalled by any edifices erected in India.

9. The third southern style is that of the Qutb Shâhî dynasty of *Golkonda*, A.D. 1512-1672. Their tombs are splendid, and form one of the most striking groups in India, but show evident signs of a decadence that was too surely invading art at the age when they were erected.

10. One by one all these brilliant individualities were absorbed in the great *Mughal* empire, founded by Bâbar, A.D. 1526, and which, though practically perishing on the death of Aurangzib, A.D. 1707, may be considered as existing till the middle of the 18th century, A.D. 1750. It is to this dynasty that Agra, Delhi, and most of the towns in northern India owe their most splendid edifices.

11. Before leaving this branch of the subject it may be expedient to enumerate the style of Moslim art existing in *Sindh*. Practically, it is Persian both in its form and the style of decoration, and must have existed in this province from a very ancient time. All the examples known of it, however, are comparatively modern, and bring us back, curiously enough, to the neighbourhood of Ghaznî, from which we started in our enumeration.

12. Leaving these, which may be called the true styles of Muhammadan architecture, we have two which may be designated as the bastard styles. The first of these is that of

Oudh (A.D. 1756-1847). In its capital there are ranges of building equal in extent and richness to those of any of the capitals above enumerated; but degraded in taste to an extent it is hardly possible to credit in a people who so shortly before had shown themselves capable of such noble aspirations.

13. The style adopted by the short-lived dynasty of *Mysore* (A.D. 1760-1799), being further removed from the influences of European vulgarity, is not so degraded as that of Lucknow, but is poor and inartistic when compared with earlier styles.

In an exhaustive treatise on the subject, the styles of Ahmadnagar and Aurangâbâd, A.D 1490-1707, ought, perhaps, to be enumerated, and some minor styles elsewhere. These have not, however, sufficient individuality to deserve being regarded as separate styles, and the amount of illustration that can be introduced into a work like the present is not sufficient to render the differences sensible to those who are not personally acquainted with the examples.

Even as it is, it would require a much more extensive series of illustrations than that here given to make even their most marked merits or peculiarities evident to those who have no other means than what such a work as this affords of forming an opinion regarding them. Each of these thirteen styles deserves a monograph; but, except for Bijâpûr,[1] Ahmadâbâd,[2] Jaunpur,[3] and Fathpur Sîkrî,[4] nothing of the sort has yet been attempted, and even the works in which this has been attempted hardly quite exhaust the materials for these cities available for the purpose. Let us hope that the deficiencies will be supplied, and the others undertaken before it is too late, for the buildings are fast perishing from the ravages of time and climate and the still more destructive exigencies and ill-advised interferences of the governing power in India

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[1] 'Architecture of Beejapore. Photographed from Drawings by Capt. Hart and A. Cumming, C.E., and on the spot by Col Biggs and Major Loch, with text by Col. Meadows Taylor and J Fergusson.' Folio, Murray, 1866.

[2] 'Architecture of Ahmedabad. 120 Photographs by Col. Biggs, with Text by Sir T.C. Hope, I.C.S. and Jas Fergusson.' Small folio, Murray, 1866; The Muhammadan Architecture of Ahmadâbâd and Gujarât generally will be found described in detail in volumes vi to ix. of the 'Archaeological Survey of Western India' (1896-1905.)

[3] 'The Sharqî Architecture of Jaunpur, etc., with Drawings, etc., by Ed W. Smith, edited by J. Burgess (1889).

[4] The splendidly illustrated work on the 'Moghul Architecture of Fathpur Sîkrî,' by the late Edmund W. Smith, in four quarto volumes with 404 excellent plates (1894-1898), must not be overlooked. It treats exhaustively of the architecture of that one place; and his 'Moghul Colour Decoration of Agra' (1901) supplies some important architectural drawings.

CHAPTER II.

GHAZNÎ.

CONTENTS.

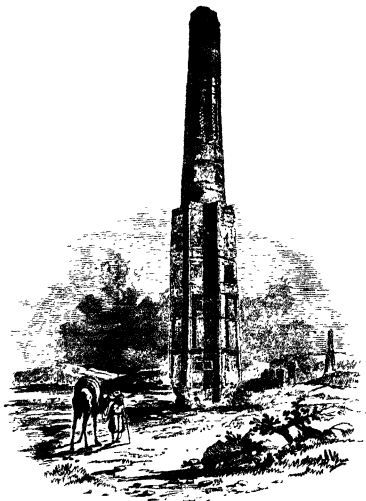
Tomb of Mahmûd—Gates of Somnâth—Minârs on the Plain

CHRONOLOGY.

Sabuktigin, founder . .	A.D. 975	'Abdu-l-Rashîd . .	A.D. 1048
Mahmûd . .	997	Ibrâhîm	1059
Mas'ûd .	1031	Shihâbu-d-Dîn (Ghûri dynasty)	1203

TOWARDS the latter part of the 9th century the power of the Khalîfs of Baghdâd was sinking into that state of rapid decline which is the fate of all Eastern dynasties. During the reign of Al Mo'tamid, A.D. 870-891, Egypt became independent, and the northern province of Bukhârâ threw off the yoke under the governor appointed by the Khalîfah Nasr Ahmad, a grandson of Sâmân, a Tartar chief, who declared and maintained his independence, and so formed the Sâmânî dynasty. After the dynasty had existed about a century, Sabuktigîn, a Tûrkish slave belonging to a general of one of the last of the Samanian kings, rendered himself also independent of his master, and established himself in Ghaznî, of which he was governor, founding the well-known dynasty of Ghaznavides. His son and successor, Mahmûd, A.D. 997-1030, is one of the best-known kings in Indian History owing to his brilliant campaigns in India, and more especially that in which he destroyed the celebrated temple of Somnâth.

On his return from an earlier campaign, in which he had sacked the town of Mathurâ, we learn from Ferishta that the king ordered a magnificent mosque to be built of marble and granite, afterwards known by the name of the Celestial Bride. Near it he founded a university. When the nobility of Ghaznî perceived the taste of their king in architecture, they also endeavoured to vie with one another in the magnificence of their palaces, as well as in the public buildings which were

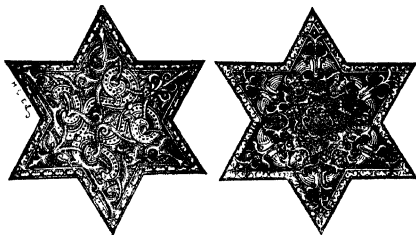
raised for the embellishment of the city. "Thus," continues the historian, "the capital was in a short time ornamented

367 Minâr at Ghaznî. (From a Drawing by G. T. Vigne, Esq.)

with mosques, porches, fountains, aqueducts, reservoirs, and cisterns, beyond any city in the East."[1]

The plain of Ghaznî still shows the remains of this splendour; and, in the dearth of information regarding Persian art of that age, an account of it would be one of the most

[1] Brigg's translation of 'Ferishta,' vol. i. p. 61.

interesting and valuable pieces of information we could receive. These ruins, however, have not been as yet either examined or described;[1] and even the tomb of the Great Mahmûd is unknown to us except by name,[2] notwithstanding the celebrity it acquired from the removal of its gates to India at the termination of our disastrous campaigns in that country.

The gates are of Deodar pine,[3] and the carved ornaments on them are so similar to those found at Cairo, on the mosque of

368 Ornaments rom the Tomb of Mahmûd at Ghaznî.

Ibn Tulun and other buildings of that age, as not only to prove that they are of the same date, but also to show how similar were the modes of decoration at these two extremities of the Moslim empire at the time of their execution.

At the same time there is nothing in their style of ornamentation that at all resembles anything found in any Hindû temple, either of their age or at any other time. There is, in fact, no reason for doubting that these gates were made for

[1] It is very much to be regretted that not a single officer accompanied our armies, when they passed and repassed through Ghaznî, able or willing to appreciate the interest of these ruins; and it is to be hoped, if an opportunity should again occur, that their importance to the history of art in the East will not be overlooked.

[2] The sketch of the tomb published by Mr. Vigne in his 'Travels in Afghanistan,' gives too confined a portion of it to enable us to judge either of its form or detail. The gate in front is probably modern, and the foiled arches in the background appear to be the only parts that belong to the 11th century.

[3] The tradition that these gates were of sandal-wood, and brought from Somnâth, is entirely disproved by the fact of their being of the local pine-wood, as well as by the style of decoration, which has no resemblance to Hindû work.

the place where they were found.[1] If any other parts of the tomb are ornamented in the same style, it would be of great interest to have them drawn. It probably is, however, from the Jâmi' Masjid that we shall obtain the best picture of the arts of that day, when any one will take the trouble of examining it.

Two minârs still adorn the plain outside the city, and form, if not the most striking, at least the most prominent of the ruins of that city. Neither of them was ever attached to a mosque; they are, indeed, pillars of victory, or *Jaya Stambhas*, like those at Chitor and elsewhere in India, and are such as we might expect to find in a country so long Buddhist One of them was erected by Mahmûd himself; the other was built, or at least finished, by Mas'ûd, one of his immediate successors.[2]

The lower part of these towers is of a star-like form—the plan being apparently formed by placing two squares diagonally the one over the other. The upper part, rising to the height of about 140 ft from the ground, is circular; both are of brickwork, covered with ornaments of terra-cotta of extreme elaboration and beauty, and retaining their sharpness to the present day

Several other minârs of the same class are found further west, even as far as the roots of the Caucasus,[3] which, like these, were pillars of victory, erected by the conquerors on their battle-fields None of them have the same architectural merit as those of Ghazni, at least in their present state, though it may be that their ornaments, having been in stucco or some perishable material, have disappeared, leaving us now only the skeleton of what they were.

The weakness of Mahmûd's successors left the Indians in repose for more than a century and a half, and, like all Eastern dynasties, the Ghaznavides were gradually sinking to inevitable decay, when their fall was precipitated by the crimes of one of them, which were fearfully avenged by the destruction of their empire and capital by 'Alâu-d-Dîn Hasan, and their race was at length superseded by that of the Ghûri, in the person of Shihâbu-d-Dîn Muhammad ibn Sâm, in the year 1186

Though centuries of misrule have weighed on this country since the time of the Ghaznavides, it is scarcely probable that all traces of their magnificence have passed away; but till their

[1] An excellent representation of these gates will be found in the second edition of 'Marco Polo's Travels,' by Col. Yule, vol. ii. p 390

[2] See translation of the inscription on these minârs, 'Journal of the Asiatic Society of Bengal,' vol xii (1843), pp. 77, 78.

[3] Two are represented by Dubois de Montpéreux, 'Voyage autour du Caucase.'

cities are examined and photographed by some one competent to discriminate between what is good or bad, or old or new, we must be content merely to indicate the position of the style, leaving this chapter to be written when the requisite information shall have been obtained. In the meanwhile it is satisfactory to know that between Herat and the Indus there do exist a sufficient number of monuments to enable us to connect the styles of the West with those in the East. They have been casually described by travellers, but not in such a manner as to render them available for our purposes; and in the unsettled state of the country it may be some time yet before their elucidation can be accomplished.

CHAPTER III.

PATHÂN STYLE

CONTENTS

CHRONOLOGY.

Shihâbu d-Dîn Ghûri	A D 1193	Tughlaq Shâh I.	1321
Qutbu d Dîn Îbak	1206	Khizr Khân, under Tîmurlang A.D.	1414
Shamsu-d-Dîn Altamsh	1210	Bahlol Lodi	1451
'Alâu-d-Dîn Khalji	1296	Sher Shah	1540
Nâsiru-d-Dîn Khusrû, last of the Khaljis	1320	Sikandar Shâh Sur, defeated by Akbar	1555

WITH all the vigour of a new race, the Ghûrians set about the conquest of India. After sustaining a defeat in the year 1191, Shihâbu-d-Dîn again entered India in A D 1192, when he attacked and defeated Prithvîrâja of Ajmîr. This success was followed by the conquest of Kanauj in A D 1193; and after the fall of these two, the capitals of the greatest empires in the north of India may be said to have been conquered before his assassination, which happened in A.D. 1206

At his death his great empire fell to pieces, and India fell to the share of Qutbu-d-Dîn Îbak. This prince was originally a Tûrkish slave, who afterwards became one of Shihâbu-d-Dîn's generals, and contributed greatly by his talents and military skill to the success of his master who had left him as his deputy in India in 1192. He and his successor, Altamsh, continued nobly the work so successfully begun, and before the death of the latter, in A D. 1235, the empire of northern India had permanently passed from the hands of the Hindûs to those of their Muhammadan conquerors.

For a century and a half after the conquest the empire continued a united whole, under Tûrkish, or, as they are usually called, Pathân dynasties. These monarchs exhibited a continued vigour and energy very unusual in the East, and not

only sustained and consolidated, but increased by successive conquests from the natives, that newly-acquired accession to the dominions of the faithful, and during that time Delhi continued practically the capital of this great empire. In the latter half, however, of the 14th century, symptoms of disintegration manifested themselves. One after another the governors of distant provinces reared the standard of revolt, and successfully established independent kingdoms, rivalling the parent state in power and in the splendour of their capitals. Still Delhi remained the nominal head at least of this confederation of states—if it may be so called—till the time when Bâbar (A.D. 1526), the sixth in descent from Tîmûrlang, invaded Hindustan. He put an end to the Pathân sway, after it had lasted for three centuries and a half, and finally succeeded in establishing the celebrated dynasty of the Mughals, which during six successive reigns, extending over the extraordinary period of nearly two centuries (A.D. 1526-1707), reconsolidated the Moslim empire into one great whole, which reached a degree of splendour and of power almost unknown in the East.

Nothing could be more brilliant, and at the same time more characteristic, than the commencement of the architectural career of these Pathâns in India. So soon as they felt themselves at all sure of their conquests, they set to work to erect two great mosques in their two principal capitals of Ajmîr and Delhi, of such magnificence as should redound to the glory of their religion, and mark their triumph over the idolaters. A nation of soldiers equipped for conquest, and that only, they had of course brought with them neither artists nor architects, but, like other nations of Turanian origin, they had strong architectural instincts, and having a style of their own, they could hardly go wrong in any architectural project they might attempt. At the same time, they found among their new subjects an infinite number of artists quite capable of carrying out any design that might be propounded to them.

In the first place, they found in the colonnaded courts of the Jaina temples nearly all that was wanted for a ready-made mosque. All that was required was the removal of the temple in its centre, and the erection of a new wall on the west side, adorned with niches—*mihrâbs*—to point out to the faithful the direction in which Mecca lay, towards which they were commanded in the Qorân to turn when they prayed. It is certain, however, that in India they never were content with this only. In the two instances at least to which we are now referring, they determined in addition to erect a screen of arches in front of the Jaina pillars, and to adorn it with all the richness and elaboration of carving which their Indian

subjects were capable of executing. Nothing could be more successful than the results. There is a largeness and grandeur about the plain simple outline of the Muhammadan arches which quite overshadows the smaller parts of the Hindû fanes, and at the same time the ornamentation, though applied to a greater extent than in any other known examples, is kept so flat as never to interfere with or break the simple outlines of the architectural construction. There may be other examples of surface-decoration as elaborate as this, but hardly anywhere on such a scale Some parts of the interior of Sta. Sophia at Constantinople are as beautiful,[1] but they are only a few square yards. The palace at Mashita, if completed, might have rivalled it, but it is a fragment;[2] and there may be—certainly were—examples in Persia between the times of Khosroes and Hârûn *al*-Rashîd, which may have equalled these, but they have perished, or at least are not known to us now, and even if they ever existed, must have been unlike these mosques In them we find a curious exemplification of some of the best qualities of the art, as exhibited previously by the Hindûs, and practised afterwards by their conquerors.

Delhi.

Of the two mosques at Old Delhi and at Ajmîr, the first named is the earlier, having been begun some seven or eight years before the other, and is also very much the larger.[3] It is, besides, associated with the Qutb Minâr, and some of the most beautiful tombs of the age, which altogether make up a group with which nothing at Ajmîr can compare. The situation, too, of the Delhi ruins is singularly beautiful, for they stand on the gentle slope of a hill, overlooking a plain that had once apparently been a lake, but which afterwards became the site of three successive capitals of the East In front are the ruins of Tughlaqâbâd, the gigantic fort of an old Pathân chief; and further north the plain is still covered with the ruins of Firozâbâd and Indrapat, the capitals of the later Pathâns and earlier Mughals. Beyond that, at the distance of about

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[1] 'History of Ancient and Medieval Architecture,' vol. i. pp. 440 *et seqq*

[2] *Ibid.* vol. i pp 401 *et seqq.*

[3] Gen. Cunningham's 'Archæological Reports,' vol ii p. 260. But though the inner court—the Qûwat-ul-Islâm—at Delhi was the whole mosque as originally designed; yet before the death of Altamsh, who was the real builder of both, the screen of arches at Delhi had been extended to 380 ft. as compared with the 200 ft. at Ajmîr, and the court-yards of the two mosques are nearly in the same proportion, their whole superficial area being 72,000 ft. at Ajmîr, as compared with 152,000 ft. at Delhi.

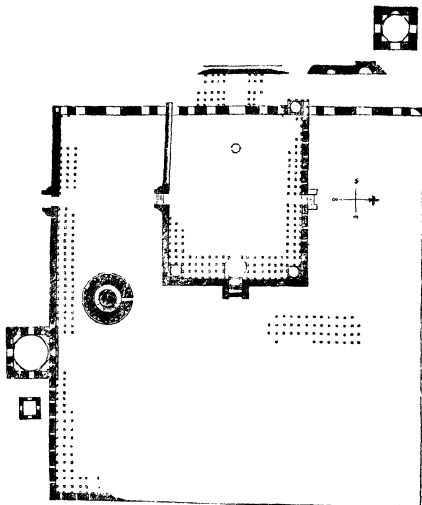
10 miles, are seen the towers of Shâhjahânâbâd, the modern capital, and till 1857 the seat of the nominal monarchy of the Great Mughal. Still further north are situated the civil station and ruins of the old British cantonments. It is a fortunate circumstance that the British station was not, as at Agra, placed in the midst of the ruins, since it is to this that we owe their preservation But for the distance, marble columns would doubtless have been taken for all purposes for which they might have been available, without regard to their beauty, and the interest of the ruins thereby annihilated Even as it is, the buildings belonging to the celebrated Shâlimâr gardens, which were the only buildings of importance in the neighbourhood of the English station, have long since disappeared.

The general arrangement of the principal ruins will be understood from the plan (Woodcut No. 369), which was taken with great care, though the scale to which it has been necessary to reduce it prevents all its peculiarities from being seen. The disposition of the various erections may first be briefly explained —The inner court on the west side is that of the original mosque of Qutbu-d-Dîn, which measures 142 ft. by 108 ft. within the corridors; and in the middle of its west half the Iron pillar stands. The main entrance is under a dome, about 20 ft in diameter on the east side, along which runs a corridor supported on four rows of pillars, the back row being placed against the walls, and in the north and south ends are two-storeyed pavilions. The side corridors had each three rows of pillars with an entrance on each side, though the gateway and all the western portion of the corridor has quite disappeared. About 20 yards of the eastern half of the wall remain and part of the colonnade, the pillars of which are of much plainer patterns than those of the other sides[1] The west end of this court is the great screen wall, 8 ft. thick, with its gigantic arches forming the entrances into the mosque itself which stood behind it and was 135 ft in length by 32 ft. deep, but is now a complete ruin—only some twenty-two of the tall columns that supported its roof being left Outside the south-east corner of the court stands the Qutb Minâr, erected at the same time.[2]

Shamsu-d-Dîn Altamsh, about A.D. 1225, extended the great

[1] This colonnade and its back wall were, "with a strange want of discrimination, reconstructed" by Major R. Smith, Executive Engineer, early in last century, who used the pillars of Altamsh's extension in front of the eastern gate of the mosque, for the purpose. And even the windows of Qutbu-d-Dîn's work did not escape "re-arrangement at the same time"—Carr Stephen's 'Archæology of Delhi,' p. 43 note.

[2] The inscription on the east gateway of the mosque court gives its date as A.D. 1191 (or 1193), and another on the north entrance says it "was commenced" in 1196.—Cunningham, 'Archæological Reports,' vol i. pp. 185-186.

screen both to the north and south by 119 ft., with five arched entrances in each section, which differ considerably in the details of their decoration as well as in size from those raised by

369. Plan of Ruins at Old Delhi (From a Plan by the Author) Scale 100 ft. to 1 in

Qutbu-d-Dîn. These were to be the façades of two extensions of the mosque, and part of the back wall of the northern extension, with the positions of the central and one of the side mihrâbs in it, still remain. Of the enlarged court, the south wall with its corridor still exists, but only a few pillars of the east corridor from which we learn that the enlarged court with

its colonnades would be about 370 ft. from north to south and 230 ft. from east to west, and so enclosing the Qutb Minâr. The tomb of Altamsh was built just to the west of the north end of the enlarged mosque.

Again 'Alâu-d-Dîn Khalji (1296-1316) projected further extensions. he removed the east wall of Altamsh's court about 155 ft., extending the south wall and its colonnade so as to make the new court 385 ft. from east to west, and constructing the beautiful 'Alâî-Darwâza on that side. Close to this gateway is the small tomb of Imâm Muhammad 'Ali Zâmin, about 24 ft. square, erected about 1535, of sandstone and marble. On the north the Sultân projected doubling the previous court—making it altogether over 700 ft. from north to south, and in this north half he began the 'Alâî Minâr which was intended to be of double the dimensions of the other; but besides this and the piers for the façade of the extended mosque nothing more seems to have been done in this north extension. 'Alâu-d-Dîn's tomb now in ruins is to the south-west of the enclosure

To understand the architecture, it is necessary to bear in mind that all the pillars are of Hindû, and all the walls of Muhammadan, architecture.

It may possibly be questioned to what extent the pillars now stand as originally arranged by the Hindûs. But it seems certain that they have all been re-arranged by the conquerors. And it is quite evident that the enclosing walls were erected by the Moslims, since all the stringcourses are covered with ornaments in their style, and all the openings possess pointed arches, which the Hindûs never used. On the whole, it thus seems that the entire structure was re-arranged in the form we now see it by the Muhammadans The celebrated mosque at Kanauj was originally a Hindû or Jaina temple, and is re-arranged on a plan precisely similar to that of the mosque of 'Amru at Old Cairo.[1] The roof and domes are all of Jaina architecture, so that no trace of the Moorish style is to be seen internally; but the exterior is as purely of Muhammadan architecture. There is another mosque at Dhâr, near Mandû, of more modern date, and, doubtless, a re-arrangement of a Hindû or Jaina temple. Another, in the fort at Jaunpur, as well as other mosques at Ahmadâbâd and elsewhere, all show the same system of taking down and re-arranging the materials on a different plan. If, therefore, the pillars at the Qutb were *in situ*, the case would be exceptional,[2] but I cannot, nevertheless, help suspecting that

[1] 'History of Ancient and Medieval Architecture,' vol. ii. Woodcut No. 977 (p. 526).

[2] Gen. Cunningham found an inscription on the wall recording that twenty-seven temples of the Hindûs had been pulled down to provide materials for this mosque ('Archæological Reports,' vol i.

the two-storeyed pavilions in the angles, and those behind the screen, may perhaps be as originally erected; but to this we will return when speaking of the Ajmîr mosque, where the Hindû pillars are probably all re-arranged It is quite certain, however, that some of the pillars at the Qutb are made up of dissimilar fragments, and all were placed where they now stand by the builders of the mosque. It may, however, be necessary to explain that there could be no difficulty in taking down and rebuilding these erections, because the joints of the pillars are all fitted with the precision that Hindû patience alone could give. Each compartment of the roof is composed of nine stones—four architraves, four angular and one central slab (as explained in diagram No 174, vol 1, p 314), all so exactly fitted, and so independent of cement, as easily to be taken down and put up again. The same is true of the domes, all which being honestly and fairly fitted, would suffer no damage from the process of removal and re-erection

The section (Woodcut No 370), of one half of the principal colonnade (the one facing the great series of arches) will explain

370. Section of part of East Colonnade at the Qutb, Old Delhi. Scale 25 ft to 1 in

its form better than words can do. It is so purely Jaina in arrangement, that it should, perhaps, have been mentioned in speaking of that style; but as forming a part of the earliest mosque in India, it is more appropriately introduced in this place. The pillars are of the same order as those used on Mount Âbû (Woodcut No. 284), except that those at Delhi are much richer and more elaborate. Most of them probably belong to the 11th or 12th century, and are among the few

p. 176) This, however, proves little, unless we know what the temples were like which were destroyed for this purpose. Twenty-seven temples like those at Khajurâho, excepting the Ghantai, would not provide pillars for one half the inner court. One temple like that at Rânpur near Sâdari would supply a sufficiency for the whole mosque, and though the latter is more modern, we have no reason for supposing that similar temples did not exist before Muhammadan times

specimens to be found in India that seem to be overloaded with ornament. There is not one inch of plain surface from the capital to the base, except the pillars behind the screen, and some others which may belong to older buildings. Still the ornament is so sharp and so cleverly executed, and the effect, in their present state of decay and ruin, so picturesque, that it is very difficult to find fault with what is so beautiful. In some instances the figures that were on the shafts of the pillars have been cut off, as offensive to Muhammadan strictness with regard to images; but on the roof and less seen parts, the cross-legged figures of the Jaina saints, and other emblems of that religion, may still be detected

The glory of the mosque, however, is not in these Hindû remains, but in the great range of arches of the screen wall on the western side, extending north and south for about 385 ft., and consisting of three greater and eight smaller arches; the central one 22 ft wide and 53 ft. high, the larger side-arches 24 ft. 4 in, and about the same height as the central arch; the smaller arches, which are unfortunately much ruined, are about half these dimensions (Woodcut No. 371) The central part of this screen, 147 ft. in length, forming the mosque proper, is ascribed to Qutbu-d-Dîn after his return from Ghaznî. Behind this, at the distance of 32 ft., are the foundations of the wall that formed the back of the mosque, but was only intended, apparently, to be carried as high as the roof of the Hindû pillars it encloses. It seems probable that the Hindû pillars between the two screens were the only part proposed to be roofed in 1196, since some of them are built into the back part of the great arches, and all above them is quite plain and smooth, without the least trace of any intention to construct a vault or roof of any sort. Indeed, a roof is by no means an essential part of a place of prayer; a wall facing Mecca is all that is required, and in India is frequently all that is built, though an enclosure is often added in front to protect the worshippers from interruption. Roofed colonnades are, of course, convenient and ornamental accompaniments, yet far from being indispensable.

The history of this mosque, as told in its construction, is as curious as anything about it. It seems that the Afghân conquerors had a tolerably distinct idea that pointed arches were the true form for architectural openings; but they left the Hindû architects and builders whom they employed to follow their own devices as to the mode of carrying out the form. The Hindûs up to this time had never built arches—nor, indeed, did they for centuries afterwards. Accordingly, they proceeded to make the pointed openings on the same principle upon which they built their domes. They carried them up in horizontal

courses as far as they could, and then closed them by long slabs meeting at the top, the construction being, in fact, that of the arch of the aqueduct at Tusculum[1] The same architects were employed by their masters to ornament the faces of these arches; and this they did by copying and repeating the ornaments on the pillars and friezes on the opposite sides of the

371. Central Range of Arches at the Qutb Mosque (From a Sketch by the Author)

court, covering the whole with a face-work of intricate and delicate carving, such as no other mosque, except that at Ajmîr, ever received before or since; and which—though perhaps in a great measure thrown away when used on such a scale—is, without exception, the most exquisite specimen of its class

[1] As shown in 'History of Ancient and Mediæval Architecture,' vol i (Woodcut No. 178), p. 301 This mode of construction is only feasible when much larger stones are used than were here employed The consequence was that the arch had become seriously crippled when I saw and sketched it. It has since been carefully restored by Government The two great side arches either were never completed, or have fallen down in consequence of the false mode of construction

known to exist anywhere. The stone being particularly hard and good, the carving retains its freshness to the present day, and is only destroyed above the arches, where the faulty Hindû construction has superinduced premature decay.

The Qutb Minâr, or great minaret at the south-east corner of the first mosque, is 48 ft. 4 in. in diameter at the base, and, when measured in 1794, was 242 ft. in height.[1] Even then, however, its capital was ruined, so that some 10 ft., or perhaps 20 ft., must be added to this to complete its original elevation. It is ornamented by four boldly-projecting balconies, one at 97 ft, the second at 148 ft., the third at 188 ft., and the fourth at 214 ft. from the ground; between which are richly-sculptured raised belts containing inscriptions.[2] In the lower storey the twenty-four projecting ribs which form the flutes are alternately angular and circular; in the second circular, and in the third angular only. Above this the minâr is plain, and principally of white marble, with belts of the same red sandstone of which the three lower storeys are composed (Woodcut No. 372).

372. Qutb Minâr.
(From a Sketch by the Author.)

It is not clear whether the angular flutings are copied from some peculiarity found in the minarets at Khurâsân and further westward, or whether they are derived from the forms of the temples of the Jains. The

[1] 'Asiatic Researches,' vol. iv. p. 313. Its height, according to Gen. Cunningham, is (after the removal of the modern pavilion) 238 ft. 1 in —'Archæological Reports,' vol. i. p. 196.

[2] On the basement storey are six bands of inscriptions—the lowest contains the designation and titles of Qutbu-d-Dîn Ibak (1206-1210); the second, the titles and praise of Muhammad ibn Sâm (1193-1206); the third, a verse from Sura 59 of the Qorân; the fourth as in the second; the fifth, 97 Arabic names of God; and the sixth a verse from Sura 2 of the Qorân. The place for the call to prayer was upon the second storey.—Carr Stephens, 'Archæology of Delhi,' pp. 58f.

forms of the bases of the minarets at Ghaznî appear to lend probability to the first hypothesis; but the star-like form of many temples — principally Jaina—in Mysore and elsewhere (*ante*, vol. i., pp. 439 *et seqq.*) would seem to countenance the idea of their being of Hindû origin. No star-like forms have yet, however, been found so far north, and their destruction has been too complete for us to hope that they may be found now. Be this as it may, it is probably not too much to assert that the Qutb Minâr is the most beautiful example of its class known to exist anywhere. The rival that will occur at once to most people is the campanile at Florence, built by Giotto. That is, it is true, 30 ft taller, but it is crushed by the mass of the cathedral alongside, and, beautiful though it is, it wants that poetry of design and exquisite finish of detail which marks every moulding of the minâr. It might have been better if the slope of the sides had been at a higher angle, but that is only apparent when seen at a distance, when viewed from the court of the mosque its form is perfect, and, under any aspect, is preferable to the prosaic squareness of the outline of the Italian example

The only Muhammadan building known to be taller than this is the minaret of the mosque of Hasan, at Cairo;[1] but as the pillar at Old Delhi is a wholly independent building, it has a far nobler appearance, and both in design and finish far surpasses not only its Egyptian rival, but any building of its class known to me in the whole world This, however, must not be looked at as if erected for the same purposes as those usually attached to mosques elsewhere. It was designed, but perhaps not solely, as a place from which the mu'azzin should call to prayers, though its lower gallery was used for that purpose, but probably also as a tower of Victory—a Jaya Stambha—in fact an emblem of conquest, which the Hindûs could only too easily understand and appreciate.

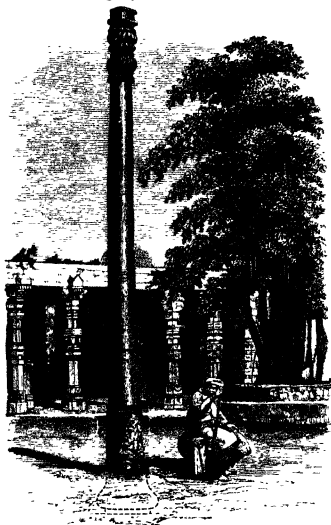
At the distance of 470 ft north of this one a second minâr was commenced in 1311, by 'Alâu-d-Dîn Khalji, of twice its dimensions, or 254 ft. in circumference It was only carried up to the height of 75 ft above the plinth, and abandoned, probably in consequence of the death of its founder in 1316.[2]

The date of all these buildings is known with sufficient exactness from the inscriptions which they bear,[3] from which it

[1] 'History of Ancient and Medieval Architecture,' vol ii p. 532, and Woodcut No. 982

[2] It has been supposed that it was erected in memory of Qutbu-d-Dîn Bakhtiyâr Kâkî of Ush, a notable Muhammadan Pîr or saint, who died here in 1235 — Raverty's 'Tabaqât-i-Nâsiri,' pp 621-622, notes. The tomb or Dargah of Khwâjah Qutb Sâhib stands about three furlongs S.S.W. from the minârs

[3] Translated by Walter Ewer, 'Asiatic Researches,' vol. xiv. p. 480. See also Cunningham, 'Archæological Reports,' vol. i pp. 132 *et seqq.*

appears that the inner court was enclosed by Shihâbu-d-Dîn. The central range of arches (Woodcut No. 371) was built by Qutbu-d-Dîn ; the wings by Altamsh, whose tomb is behind the

373. Iron Pillar at the Qutb (From a Photograph.)
The dotted line shows the extent below the ground

northern range, and the Qutb Minâr was either built or finished by the same monarch ; they extend, therefore, from A.D. 1196 to 1235, at which date they were left incomplete, probably in consequence of the death of the last-named king.

One of the most interesting objects connected with this mosque is the iron pillar which stands in its courtyard (Woodcut No. 373). It stands 22 ft. above the ground, and as the depth under the pavement is now ascertained to be only 20 in., the total height is 23 ft. 8 in.[1] Its diameter at the base is 16.4 in., and at the capital 12.05 in. The capital is 3½ ft. high, and is sharply and clearly wrought into the Persian form that makes it look as if it belonged to an earlier period than it does; and it has the amalaka moulding, which is indicative of considerable antiquity. It has not, however, been yet correctly ascertained what its age really is. There is an inscription upon it, but without a date. From the form of its alphabet, Prinsep ascribed it to the 3rd or 4th century,[2] Bhau Daji, on the same evidence, to the end of the 5th or beginning of the 6th century.[3] My own conviction is that it belongs to one of the Chandra Râjas of the Gupta dynasty, either consequently about A.D. 370 or A.D. 415.

Taking A.D. 400 as a mean date—and it certainly is not far from the truth—it opens our eyes to an unsuspected state of affairs to find the Hindûs at that age capable of forging a bar of iron larger than any that have been forged even in Europe up to a very late date, and not frequently even now. As we find them, however, some centuries afterwards, using bars as long as this lât in roofing the porch of the temple at Kanârak (*ante*, p. 107), we must now believe that they were much more familiar with the use of this metal than they afterwards became. It is almost equally startling to find that, after an exposure to wind and rain for fourteen centuries, it is unrusted, and the capital and inscription are as clear and as sharp now as when put up fifteen centuries ago.[4]

[1] It is a curious illustration how difficult it sometimes is to obtain correct information in India, that when Gen. Cunningham published his 'Reports' in 1871, he stated, apparently on the authority of Mr Cooper, Deputy Commissioner, that an excavation had been carried down to a depth of 26 ft., but without reaching the bottom. "The man in charge, however,"—*témoin oculaire*—"assured him that the actual depth reached was 35 ft."—Vol. i. p. 169. He consequently estimated the whole length at 60 ft., but fortunately ordered a new excavation, determined to reach the bottom—*coûte que coûte*—and found it at 20 inches below the surface.—Vol. iv. p. 28, plate 5. At a distance of a few inches below the surface it expands in a bulbous form to a diameter of 2 ft. 4 in., and rests on a gridiron of iron bars, which are fastened with lead into the stone pavement.

[2] 'Journal of the Asiatic Society of Bengal,' vol. vii. p. 629.

[3] 'Journal Bombay Branch of the Royal Asiatic Society,' vol. x. p. 63. Dr Fleet in 'Inscriptions of the Early Guptas,' pp. 139f. gives a revised version. It bears a posthumous inscription in eulogy of the conquests of a king Chandra as to whose date or dynasty nothing is stated.

[4] There is no mistake about the Meharauli pillar being of pure iron. Gen. Cunningham had a bit of it analysed in India by Dr. Murray, and another portion was analysed in the School of Mines here by Dr. Percy. Both found it pure malleable iron without any alloy.

As the inscription informs us the pillar was dedicated to Vishnu, there is little doubt that it originally supported a figure of Garuda on the summit, which the Muhammadans of course removed; but the real object of its erection was as a dhwaja or standard of the god Vishnu and to record the "defeat of the Vâhlikas,[1] across the seven mouths of the Sindhu," or Indus. It is, to say the least of it, a curious coincidence, that eight centuries afterwards men from that same Baktrian country should have erected a Jaya Stambha ten times as tall as this one, in the same courtyard, to celebrate their victory over the descendants of those Hindûs who so long before had expelled their ancestors from the country.

374. Interior of a Tomb at Old Delhi. (From a Sketch by the Author.)

Immediately behind the north-west corner of the mosque stands the tomb of Altamsh, the founder. Though small—being a room 29 ft. 6 in. square inside, with walls 7½ ft. thick and doors on the four sides—it is one of the richest examples of Hindû art applied to Muhammadan purposes that Old Delhi affords, and is extremely beautiful, though the builders still display a certain degree of inaptness in fitting the details to their new purposes. The effect at present is injured by the want of a roof, which has long since disappeared. In addition to the beauty of its details it is interesting as being the oldest tomb known to exist in India. He died A.D. 1235.[2]

[1] Can these Vâhlikas be the Indo-Skythians by overthrowing whom the Guptas must have risen to power? In Sanskrit literature, by Vâhlikas the people of Baktria or Balkh are usually understood.

[2] Carr Stephen's 'Archæology of Delhi,' pp. 74-75; Fanshawe's 'Delhi Past and Present,' pp. 269, 270.

A more beautiful example than even this is the 'Alâî-Darwâza, shown on the left hand of the plan (Woodcut No. 369). It was erected by 'Alâu-d-Dîn Khalji, and the date 1310 is found among its inscriptions It is, therefore, about a century more modern than the other buildings of the place, and displays the so-called Pathân [1] style at its period of greatest perfection, when the Hindû masons had learned to fit their exquisite style of decoration to the forms of their foreign masters. Its walls are decorated internally with a diaper pattern of unrivalled excellence, and the mode in which the square is changed into an octagon is more simply elegant and appropriate than any other example I am acquainted with in India (Plate XXIX.)[2] The pendentives accord perfectly with the pointed openings in the four other faces, and are in every respect appropriately constructive.[3] True there are defects For instance, they are rather too plain for the elaborate diapering which covers the whole of the lower part of the building both internally and externally; but ornament might easily have been added, and their plainness accords with the simplicity of the dome, which is indeed by no means worthy of the substructure. Not being pierced with windows, it seems as if the architect assumed that its plainness would not be detected in the gloom that in consequence prevails.

This building, though small—it is only 56 ft 9 in square externally, and with an internal apartment only 34 ft. 6 in. in plan — marks the culminating point of this Pathân style in Delhi. Nothing so complete had been done before, nothing so ornate was attempted by them afterwards In the provinces wonderful buildings were erected between this period and the Mughal conquest, but in the capital their edifices were more marked by solemn gloom and nakedness than by ornamentation or any of the higher graces of architectural art. Externally it is a good deal damaged, but its effect is still equal to that of any building of its class in India It was copied, with some modifications, in the gateway to the fine Khairpur Mosque, near Safdar Khân's tomb, erected under Sikandar Lodî in 1494.

AJMÎR.

The mosque at Ajmîr (Woodcut No 375) was commenced apparently in the year 1200, and was certainly completed during

[1] Major Raverty has shown that the name of "Pathâns" does not apply to the first six dynasties of Sultâns of Delhi, who were "Turkish slaves, Khaljis, Jats, low caste Hindûs and Sayyids." We owe the blunder to the translators of Firishta —'Journal of the Asiatic Society of Bengal,' vol xliv pp 24 *et seqq*

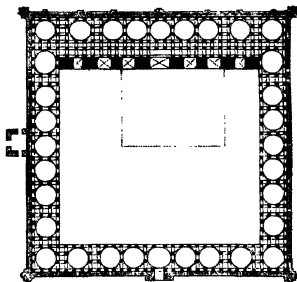
[2] From Fanshawe's 'Delhi,' p 270.

[3] The same form of pendentive is found at Serbistan, nearly nine centuries before this time.—'History of Ancient and Medieval Architecture,' 3rd ed. vol. i. p. 396, Woodcut No. 259. Conf. R. Phené Spiers, 'Architecture East and West,' pp. 65 *et seqq.*

PLATE XXIX

Alai Gateway at Old Delhi.

[*To face page* 210, Vol. II

the reign of Altamsh, A.D. 1211-1235.[1] According to tradition, it was finished in two days and a half; hence the only name by

375 Mosque at Ajmir (Plan as restored by Gen Cunningham, 1864.) Scale 100 ft. to 1 in.

which it is now known—the "Arhai dîn ka Jhomprâ," which, if it means anything, can only apply to the clearing away of the Hindû temples and symbols, to provide materials for the erection of a magnificent mosque to the glory of the iconoclast conquerors and their self-exalting creed of Islâm. It stands on the outskirts of the city at the base of Târâgadh hill. Like the remains at Old Delhi, the entire plan is Moslim, whilst the columns and roofs are the spoils of Hindû temples. At first sight the plan, with its large cloistered court, bears a resemblance to that of a Jaina temple, and the octagonal arrangement of the pillars for the support of the roofs, might seem to support the comparison.[2] But like many others elsewhere this formed an enclosure, about 262 ft. square outside,[3] with towers at the corners, to be surrounded on the north, east, and south sides, by open cloisters raised on Hindû pillars, now almost quite

[1] Cunningham, 'Archæological Reports,' vol. ii. p. 261

[2] Tod, in his 'Annals,' treats it simply as a Jaina temple, without referring to any possible alterations, except additions made by Moslim architects, vol. i. p. 779, see also his plate, which is singularly correct.

[3] General Cunningham's measurements and his plan do not agree. He gives the outside length from north to south as 272 ft. 6 in., and next page the exterior length of the mosque as 259 ft.; but the plan makes the outside dimensions equal, whilst his measurement from east to west is 264 ft. 6 in.

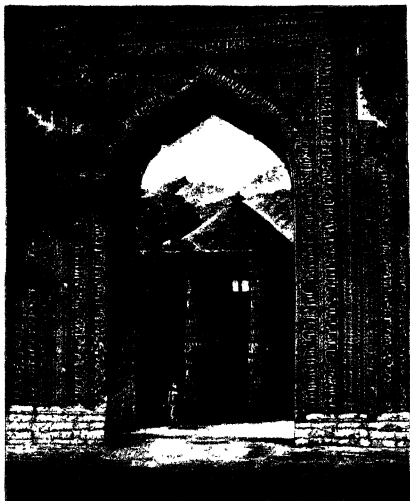
ruined. The principal entrance is, of course, on the east side, but there was another on the south with a projecting porch. The north side is built close to the scarped rock of the hill. The open court would be about 200 ft. wide by 175 ft. to the front of the Masjid on its west side, which is the only part now standing; and Woodcut No 376 shows all that now exists

376 Plan of Ajmir Mosque as it exists (from a drawing by Mr H Cousens) Scale 100 ft. to 1 in.

of the mosque itself. No tower at the north-west corner probably ever existed, whilst that at the south-west has been the shrine of a small Hindû temple of which the sikhara was demolished; but the small bastions on the east corners of the court are Muhammadan and of the same plan as the turrets over the central piers of the screen. The corridor on the east has been rebuilt but of much less width than is shown on the restored plan, of the north corridor there is no trace, and only the wall of the south one is left. What remains, however, is sufficient to show that, if completed, it must originally have been a singularly elegant specimen of an early Indian mosque. The roof extends only over six of the front piers, or about 141 ft., beyond which about 54 ft. at each end is quite open and even unpaved. Behind the screen piers the area of the mosque is 40 ft. 8 in. deep. The roof is supported by four rows of lofty shafts and another of pilasters (or pillars built into the back wall)—70 in all—each formed of three superimposed Hindû pillars. These are arranged as in Jaina and Hindû temples so as to support on eight pillars each the roof and its five domes, or rather, conical roofs, which are all that exist.[1]

The glory, however, of this mosque, as of that of the Qutb, is the screen of seven arches with which Altamsh adorned the courtyard (Woodcut No. 377). Its dimensions are very similar to those of its rival. The central arch is 22 ft. 2 in. wide; the two on each side 13 ft. 3 in., and those at the ends 13 ft. 4 in. and 12 ft. 8 in. Each arch is surrounded by three lines of

[1] The outer form of these early domes, in conformity with their interiors, being conical, was regarded as ugly, and the Archæological Survey replaced them a few years ago by "better shaped hemispherical ones."

writing, the outer in the Kufic and the other two in Arabic character, and divided from each other by bands of Arabesque ornament boldly and clearly cut, and still as sharp as when first

377. Great Arch in Mosque at Ajmir (From a Photograph.)

chiselled. In the centre the screen rises to a height of 56 ft., and on it are the ruins of two small minarets 10½ ft. in diameter, ornamented with alternate circular and angular flutes, as in the lower storey of the Qutb. It is not clear whether anything of the same sort existed at Delhi—probably not, as the great minâr may have served for that purpose, and their introduction here

looks like an afterthought, and the production of an unpractised hand working in an unfamiliar style. Wherever and whenever minârs were afterwards introduced, preparations for them were always made from the foundations, and their lines are always carried down to the ground, in some shape or other, as in true art they ought to be. This solecism, if it may be so called, evidently arose from the architects being Hindûs, unfamiliar with the style; and to this also is due the fact that all the arches are constructed on the horizontal principle. There is not a true arch in the place, but, owing to their having the command of larger stones than were available at Delhi, the arches are not here crippled, as they were there before the repairs.

It is neither, however, its dimensions nor design that makes this screen one of the most remarkable architectural objects in India, but the mode in which it is decorated. Nothing can exceed the taste with which the Kûfî and Tughrâ inscriptions are interwoven with the more purely architectural decorations, or the manner in which they give life and variety to the whole, without ever interfering with the constructive lines of the design. As before remarked, as examples of surface-decoration, these two mosques of Altamsh at Delhi and Ajmîr are probably unrivalled. Nothing in Cairo or in Persia is so exquisite in detail, and nothing in Spain or Syria can approach them for beauty of surface-decoration. Besides this, they are unique Nowhere else would it be possible to find Muhammadan largeness of conception, combined with Hindû delicacy of ornamentation, carried out to the same extent and in the same manner If to this we add their historical value as the first mosques erected in India, and their ethnographic importance as bringing out the leading characteristics of the two races in so distinct and marked a manner, there are certainly no two buildings in India that better deserve the protecting care of Government, the one has received its fair share of attention, the other has, till quite lately, been most shamefully neglected, and most barbarously ill-treated [1]

Later Pathân Style.

After the death of 'Alâu-d-Dîn (A.D. 1316) a change seems to have come over the spirit of the architects of the succeeding Tughlaq Shâhî and Sayyid dynasties, and all their subsequent buildings, down to the time of the Afghân Sher Shâh, A.D.

[1] Owing to the Muhammadan part being better built and with larger materials, the mosque is not in the same ruinous condition as that at the Qutb was before the repairs of some thirty-five years ago. There is, so far as I can judge, no building in India more worthy of the attention of Government than this.

1539, exhibit a stern simplicity of design, in marked contrast to the elaborate ornamentation with which they began. It is not clear whether this arose from any puritanical reaction against the quasi-Hinduism of the earlier examples, or from any political causes, the effect of which it is now difficult to trace but, certain it is, that when that stern old warrior, Tughlaq Shâh, A.D. 1321, founded the New Delhi, which still bears his name — Tughlaqâbâd — all his buildings are characterised by a severe simplicity, in marked contrast with those which his predecessors erected in the capital that overlooks the plain in which his citadel is situated. His tomb, which was finished at least, if not built, by his successor, instead of being situated in a garden, as is usually the case, stands by itself in a strongly-fortified citadel of its own, surrounded by an artificial lake. The sloping walls and almost Egyptian solidity of this mausoleum, combined with the bold and massive towers of the fortifications that surround it, form a model of a warrior's tomb hardly to be rivalled anywhere, and in singular contrast with the elegant and luxuriant garden-tombs of the more settled and peaceful dynasties that succeeded.

The change, however, of most interest from a historical point of view is, that by the time of Tughlaq Shâh's reign, the Moslims had worked themselves entirely free from Hindû influence. In his buildings all the arches are true arches, all the details invented for the place where they are found. His tomb, in fact, would be as appropriate — more so, indeed — if found in the valley of the Nile than on the banks of the Jamnâ; and from that time forward Muhammadan architecture in India was a new and complete style in itself, and developed according to the natural and inevitable sequences of true styles in all parts of the world

It is true, nevertheless, that in their tombs, as well as in their mosques, they frequently, to save themselves trouble, used Hindû materials when they were available, and often with the most picturesque effect. Many of these compound edifices are composed of four pillars only, surmounted by a small dome; but frequently they adopt with the pillars the Jaina arrangement of twelve pillars, so placed as to support an octagonal framework, easily moulded into a circular basement for a dome. This, as before observed, is the arrangement of the tomb at Mylassa, and the formative idea of all that is beautiful in the plans of Jaina and northern Hindû buildings in India.

One example must suffice to explain the effect of these buildings (Woodcut No. 378). It is at Sipri, about 70 miles south-south-west from Gâwliar At first sight the dome looks rather heavy for the substructure; but the effect of the whole

is so picturesque that it is difficult to find fault with it. If all the materials were original, the design would be open to

378. Tomb at Sipri, Gwâliar State (From a Sketch by the Author)

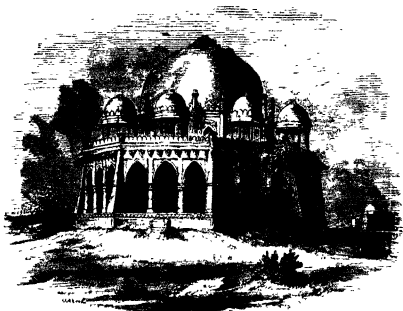
criticism; but, when a portion is avowedly borrowed, a slight want of balance between the parts may be excused.

There are several examples of tombs of this sort at the Bakarîyâ Kund in Benares, evidently made up from ancient materials;[1] and, indeed, wherever the Muhammadans fairly settled themselves on a site previously occupied by the Hindûs, Jains, or Buddhists, such combinations are frequent; but no attempt is ever made to assimilate the parts that are Muhammadan with those belonging to the Hindû style which they are employing; they are of the age in which the tomb or mosque was built, and that age, consequently, easily recognisable by any one familiar with the style.

The usual form of a Pathân tomb will be better understood from the following woodcut (No. 379), representing a nameless sepulchre[2] among the hundreds that still strew the plains of

[1] 'Journal of the Asiatic Society of Bengal,' vol. xxxiv. pp. 1 *et seqq.*, plates 1-8.

[2] Cunningham says it is ascribed to Mubârak Khân Pathân; Mr Fanshawe assigns it to Muhammad Shâh IV., who died 1443, but to whom Sayyid Ahmad ascribes another octagonal tomb to the north-east of the mosque.—Cunningham's 'Archæological Reports,' vol. xx. pp. 158, 159; and Fanshawe's 'Delhi,' p. 244.

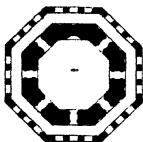
Old Delhi. It stands at the village of Khairpur, about 3 miles south from the Ajmîr gate of Delhi, and on the south-west of the

379. Tomb at Khairpur, Old Delhi. (From a Sketch by the Author.)

mosque. It consists of an octagonal apartment, 31 ft. 10 in. inside diameter, surrounded by a verandah following the same form—the base being 72 ft. 2 in in diameter—each face being ornamented by three arches of the stilted pointed form generally adopted by the Pathâns, or rather Sayyids, and it is supported by rectangular pillars, which are almost as universal with them as this form of arch. It is a form evidently borrowed from the square pier of the Jains, but so altered and so simplified, that it requires some ingenuity to recognise its origin in its new combination.

Another octagonal tomb, to the north-east of the mosque, is built in the same style and of almost exactly the same dimensions; and the tomb of Mubârak Shâh II. (murdered in 1434) at Kotila or Mubârakpur, about a mile and a half south of Khairpur, is also of the same pattern and size. It is the earliest of those in the later Pathân style.[1]

This series of tombs closes with that of Sher Shâh (1539-

[1] A plan is given in Cunningham's 'Archæological Reports, vol. xx. plate 35.

1545) (Woodcut No. 380), the most illustrious of his race. It is situated on a terrace 30 ft. high and about 300 ft. square, in the middle of a large tank, near Sahsarâm, in Shâhâbâd, and, from its locality and its design, is now a singularly picturesque object (Woodcut No. 381). Its dimensions too are considerable.[1] Its base is an octagon, 56 ft. on each side externally, or 135 ft. in diameter. A gallery, 10 ft. 2 in. wide, surrounds the central apartment, which is surmounted by a large dome 71 ft. in diameter, beneath which stands the tomb of the founder and of some of his favourite companions in arms.

380. Tomb of Sher Shâh at Sahsarâm. Scale 100 ft. to 1 in.

381. Tomb of Sher Shâh at Sahsarâm. (From a Photograph.)

On the exterior, the terrace on which it stands is ornamented

[1] Cunningham's 'Archæological Reports,' vol. xi. p. 135.

by bold octagonal pavilions in the angles, which support appropriately the central dome, and the little bracketed kiosks between them break pleasingly the outline. In the same manner the octagonal kiosks that cluster round the drum of the dome, and the dome itself, relieve the monotony of the composition without detracting from its solidity or apparent solemnity. Altogether, as a royal tomb of the second class, there are few that surpass it in India, either for beauty of outline or appropriateness of detail. Originally it was connected with the mainland by a bridge, which fortunately was broken down before the grand trunk road passed near But for this, it would probably have been utilised long ago.[1]

The mosques of these Sultâns bore the same aspect as their tombs. The so-called Kala or Kalân Masjid in the present city of Delhi, and finished, according to an inscription on its walls, in A.D 1387, is in a style not unlike the tomb (Woodcut No. 379), but more massive, and even less ornamented This severe simplicity seems to have been the characteristic of the latter part of the 14th century, and may have been a protest of the more puritanical Moslim spirit against the Hindû exuberance which characterised both the 13th and the 15th centuries. A reaction, however, took place, and the later style of Delhi was hardly less rich, and certainly far more appropriate for the purposes to which it was devoted than the first style, as exhibited in the buildings at the Qutb

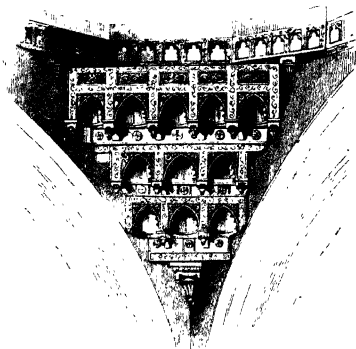
This, however, was principally owing to the exceptional splendour of the reign of Sher Shâh, who, however, is so mixed up both in date and in association with the earlier Mughals, that it is difficult to discriminate between them. Though Bâbar conquered India in A.D. 1526, his successor, Humâyûn, was defeated and driven from the throne by Sher Shâh in A.D 1540, and it was only in A.D 1555 that the Mughal dynasty was finally and securely established at Delhi. The style consequently of the first half of the 16th century may be considered as the last expiring effort of the Pathâns, or the first dawn of that of the great Mughals, and it was well worthy of either.

At this age the façades of these mosques became far more ornamental, and more frequently encrusted with marbles, and always adorned with sculpture of a rich and beautiful character; the angles of the buildings were also relieved by little kiosks, supported by four richly bracketed pillars, but never with

[1] In the 'Journal of Indian Art and Industry,' vol. v. pp 49, 50, and plates 58-64, the late Mr E. W Smith has given a carefully illustrated account of a ruined tomb at Kâlpi, known as the Chaurâsi Gumbaz It is 115 ft sq., the central apartment being 40 ft. sq., surrounded by a double corridor of forty groined areas, the roofs supported on massive piers.

minarets, which, so far as I know, were not attached to mosques during the so-called Pathân period. The call to prayer was made from the roof; and, except the first rude attempt at Ajmîr, I do not know an instance of a minaret built solely for such a purpose, though they were, as we know, universal in Egypt and elsewhere long before this time, and were considered nearly indispensable in the buildings of the Mughals very shortly afterwards. The Pathâns seem to have regarded the minâr as the Italians viewed the Campanile, more as a symbol of power and of victory than as an adjunct to a house of worship.

The body of the mosque became generally an oblong hall, with a central dome flanked by two others of the same horizontal dimensions, but not so lofty, and separated from it by a broad, bold arch, the mouldings and decorations of which formed one of the principal ornaments of the building.

The pendentives were even more remarkable than the arches

382. Pendentive from Mosque at Old Delhi (From a Sketch by the Author.)

for elaborateness of detail. Their forms are so various that it is impossible to classify or describe them; perhaps the most usual is that represented in Woodcut No 382, where the angle is

filled up with a number of small imitations of arches, bracketing out one beyond the other. It might seem probable that this scheme of decoration was based on the honeycomb or stalactite vault used by the Arabs in Spain; but here the pendentive is differently constructed from the Arab pendentives, which are curved in plan, whilst this is simply a corner bracket.[1]

If it were not that the buildings of the earlier Sultâns are so completely eclipsed by the greater splendour of those of the Mughal dynasty, which succeeded them in their own capitals, their style would have attracted more attention than has hitherto been bestowed upon it; and its monograph would be as interesting as any that the Indian-Saracenic affords. In its first period the style was characterised by all the richness which Hindû elaboration could bestow; in the second by a stern simplicity and grandeur much more appropriate, according to our ideas, to the spirit of the people; and during the latter part of its existence, by a return to the elaborateness of the past; but at this period every detail was fitted to its place and its purpose. We forget the Hindû except in his delicacy, and we recognise in this last development one of the completed architectural styles of the world.

[1] R. Phené Spiers, 'Architecture—East and West,' pp. 34-35.

CHAPTER IV.

JAUNPUR

CONTENTS

Jami' Masjid and Lâl Darwâza

CHRONOLOGY

Khwâja i Jahan assumes independence at Jaunpur	A D 1394	Mahmûd Shah Sharqî	A.D. 1440
Mubârak, his adopted son	1399	Husain Shâh	1452
Shamsu-d-Dîn—Ibrâhim Shâh Sharqî	1401	—deposed and seeks refuge at Gaur	1479

IT was just two centuries after the conquest of India by the Moslims that Khwâja-i-Jahân, the Sûbahdâr or governor of the province in which Jaunpur[1] is situated, assumed independence, and established a dynasty which maintained itself for nearly a century, from A D 1394 to about 1479, and though then reconquered by the sovereign of Delhi, still retained a sort of semi-independence till finally incorporated in the Mughal empire by the great Akbar. During this period Jaunpur was adorned by several large mosques, three of which still remain tolerably entire, and a considerable number of tombs, palaces and other buildings, besides a fort and bridge, all of which are as remarkable specimens of their class of architecture as are to be found anywhere in India

Although so long after the time when, under 'Alâu-d-Dîn and Tughlaq Shâh, the architecture of the capital had assumed something like completeness, it is curious to observe how imperfect the amalgamation was in the provinces at the time when the principal buildings at Jaunpur were erected. The principal parts of the mosque, such as the gateways, the great halls, and the western parts generally, are in a complete arcuate style. Wherever, indeed, wide openings and large internal

[1] Jaunpur is about 40 miles north-west from Benares. Its architecture is treated in detail in 'The Sharqî Architecture of Jaunpur' (1889) illustrated by 74 plates from the drawings of the late Edmund W. Smith, of the Archæological Survey.

spaces were wanted, arches and domes and radiating vaults were employed, and there is little in those parts to distinguish this architecture from that of the capitals. But in the cloisters that surround the courts, and in the galleries in the interior, short square pillars are as generally employed, with bracket capitals, horizontal architraves, and roofs formed of flat slabs, as was invariably the case in Hindû and Jaina temples. Instead of being fused together, as they afterwards became, the arcuate style of the Moslims stands here, though in juxtaposition, in such marked contrast to the trabeate style of the Hindûs, that some authors have been led to suppose that the pillared parts belonged to ancient Jaina or Buddhist monuments, which had been appropriated by the Muhammadans and converted to their purposes.[1] The truth of the matter appears to be, that the greater part of the Muhammadans in the province at the time the mosques were built were Hindûs converted to that religion, and who still clung to their native forms when these did not clash with their new faith, and the masons were almost certainly those whose traditions and whose taste inclined them much more to the old trabeate forms than to the newly-introduced arched style.

As we shall presently see at Gaur, on the one hand, the arched style prevailed from the first, because the builders had no other material than brick, and large openings were then impossible without arches. At Ahmadâbâd, on the other hand, in an essentially Jaina country, and where stone was abundant, the pillared forms were not only as commonly employed as at Jaunpur, but were used for so long a time, that before the country was absorbed in the Mughal empire, the amalgamation between the trabeate and arcuate forms was complete.

The oldest mosque at Jaunpur is that of Ibrâhîm Nâib Bârbak the general of Fîrûz Shâh Tughlaq, in the fort, which we learn from an inscription on it, was completed in A.D. 1377.[2] It is not large—externally 130 ft. north and south—and consists of a central block of masonry, with a large archway, of the usual style of the Muhammadan architecture of the period, and five openings between pillars on either hand. The front row of these pillars is double, they are of various designs, the outer

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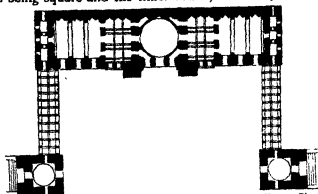
[1] The first to suggest this was the Baron Hügel, and the idea was taken up by the late Mr Horne and Rev. M A. Skerring There may have been some Jaina or Hindû buildings at Jaunpur of the 13th or 14th centuries that were utilised by the Muhammadans, but nine-tenths at least of the pillars in these mosques were made at the time they were required for the places they now occupy.

[2] Mr Blochmann read the date 778 A.H. ('Proceedings of the Asiatic Society of Bengal,' 1875, p. 14), Khairu-d-din in his 'History of Jaunpur,' translated by F. Pogson (p 41) read this date as 798 A.H. or 1396 A.D.

pillars being square and the inner round, and richly sculptured,

383 Plan of Western Half of Courtyard of Jami' Masjid, Jaunpur. (From a Plan by the Author.) Scale 100 ft. to 1 in.

384. View of south lateral Gateway of Jâmi' Masjid, Jaunpur. (From a Drawing by the Author.)

and were evidently taken from some temple that existed there,

or in the neighbourhood, before the Moslim occupation, but they seem to have exhausted the stock, as scarcely any other such are found in the mosques built subsequently.[1]

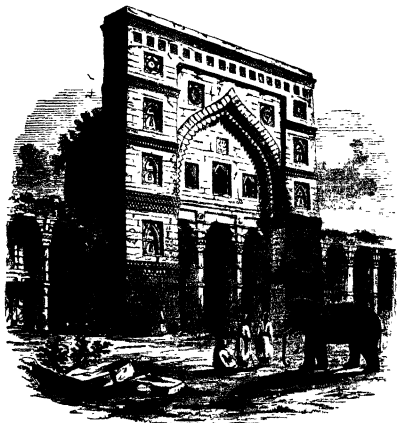
There are three great mosques still standing in the city; of these the grandest is the Jâmi' Masjid (Woodcuts Nos. 383, 384), which was commenced by Shâh Ibrâhîm, A.D. 1438, but not completed till the reign of Husain Shâh A.D. 1452-1478. It stands on a platform raised from 16 to 20 ft. above the ground level and consists of a courtyard 217 ft. 4 in. by 211 ft. 6 in., on the western side of which is situated the range of buildings forming the mosque, the central area covered by a dome 39 ft. 8 in in diameter, in front of which stands a gate pyramid or *propylon*,[2] of almost Egyptian mass and outline, rising to the height of 86 ft. This gate pyramid by its elevation supplied the place of a minaret, which is a feature as little known at Jaunpur, as it was, at the same age, in the capital city of Delhi. On each side of the dome is a compartment, 44 ft. 7 in. by 25 ft. 4 in., divided into two storeys by a stone floor supported on pillars; and beyond this, on each side, is an apartment 39 ft. 7 in. by 49 ft. 3 in, covered by a bold pointed vault with ribs, so constructed that its upper surface forms the external roof of the building, which in Gothic vaults is scarcely ever the case. Each compartment has three mihrâbs in the back wall, that is fifteen on the ground floor, with two in each of the upper rooms. The three sides of the courtyard were surrounded by double colonnades, two storeys in height internally, but with three on the exterior, the floor of the courtyard being raised to the height of the lower storey. On each face was a handsome gateway; the southern one is represented in Woodcut No. 384, which gives a fair idea of the style. The greater part of the eastern side of the court with the entrance on that side and the upper storeys of the other cloisters, are said to have been destroyed by Sultân Sikandar Lodî in his displeasure at the ingratitude of Husain, 1499-1510, though there is also a story of their being taken down at a very much later date.

The smallest of the mosques in the city is the Lâl Darwâza or Red Gate, which stands to the north-west of the city.[3] It is in the same style as the others; and its propylon—represented in Woodcut No. 385—displays not only the bold massiveness with which these mosques were erected, but shows also that strange admixture of Hindû and Muhammadan architecture

[1] A view of this mosque will be found in Kittoe's 'Indian Architecture,' plate 2, and a plan in Cunningham's 'Archæological Survey Reports,' vol. xi. plate 31.

[2] It is partially seen in Woodcut No. 384; but for plans, elevations, sections, and details, see 'Sharqî Architecture of Jaunpur,' pages 52-63, and plates 43-73.

[3] *Ibid.* pp. 43-51, and plates 26-40.

which pervaded the style during the whole period of its continuance. The Masjid measures 168 ft. 6 in. in length inside by 35 ft. 4 in. from front to back, whilst the court is about 132½ ft. from east to west, by 130½ ft. from north to south, surrounded by corridors about 17½ ft. wide on the sides, and

385. Lâl Darwâza Mosque, Jaunpur. (From a Drawing by the Author.)

16 ft. at the east end. The propylon is 45 ft. wide over all at the base and 49 ft. high.

Of all the mosques remaining at Jaunpur, the Atala Masjid, completed in 1408, is the most ornate and the most beautiful. The colonnades surrounding its court are five aisles in depth, the outer pillars, as well as those next the court, being double square pillars. The four intermediate rows are single square pillars, supporting a flat roof of slabs, arranged as in Hindû temples. It is also two storeys in height, the lower storey

being occupied by three inner aisles belonging to the court, the fourth forming a series of cells opening outwardly, with a verandah supported by the outer row of pillars. All this is so like a Hindû arrangement that one might almost at first sight be tempted, like Baron Hügel, to fancy it was originally a Buddhist monastery. He failed to remark, however, that both here and in the Jâmi' Masjid the cells open outwardly, and in the latter are below the level of the courtyard of the mosque—an arrangement common enough in Muhammadan, but never found in Buddhist, buildings. Its gateways, however, which are the principal ornaments of the outer court, are purely Saracenic, and the western face is adorned by three propylons —the central one 73 ft. 6 in. high by 64 ft. 6 in wide at the base, and two smaller, each 31 ft. 3 in. high and 23 ft. 6 in. wide, —similar to that represented in the last woodcut, but richer and more beautiful, while its interior domes and roofs are superior to any other specimen of Muhammadan art I am acquainted with of so early an age. They are, too, perhaps, more striking here, because, though in juxtaposition with the quasi-Hinduism of the court, they exhibit the arched style of the Saracenic architects in as great a degree of completeness as it exhibited at any subsequent period.[1]

The other buildings hardly require particular mention, though, as transition specimens between the two styles, these Jaunpur examples possess a simplicity and grandeur not often met with in this style. An appearance of strength, moreover, is imparted to them by their sloping walls, which is foreign to our general conception of Saracenic art, though at Tughlaqâbâd and elsewhere it is carried even further than at Jaunpur. Among the Afghâns of India the expression of strength is as characteristic of the style as massiveness is of that of the Normans in England. In India it is found conjoined with a degree of refinement seldom met with elsewhere, and totally free from the coarseness which in other countries usually besets vigour and boldness of design.

The peculiarities of this style are by no means confined to the capital; they prevail at Ghâzipur, and as far north as Kanauj, while at Benares the examples are frequent. In the suburbs of that city, at a place called the Bakarîyâ Kund,[2] there is a group of tombs, as mentioned above, and other build-

[1] 'Sharqî Architecture of Jaunpur,' pp. 3 *et seqq*. and plates 29 to 40 A few of the pillars are from Hindû temples.

[2] If the buildings of the Bakarîyâ Kund had been found within 20 miles of Ahmadâbâd where there are dozens exactly like them they would hardly have deserved a passing remark. Any one familiar with the style would have assigned them a date—A.D. 1450, or thereabouts—and would hardly have troubled himself to enquire who built them, they are so like all others of the same age.

ings belonging to the Moslims, which are singularly pleasing specimens of the Jaunpur style, and certainly belong to the same age as those just described.

The kingdom of Jaunpur is also rich in little tombs and shrines in which the Moslims have used up Hindû and Jaina pillars, merely rearranging them after their own fashion. These, of course, will not bear criticism as architectural designs, but there is always something so indescribably picturesque about them as fairly to extort admiration. The principal example of this compound style is a mosque at Kanauj known popularly as "Sîtâ-ki Rasoî," "Sîtâ's Kitchen." It seems to be a Jaina temple, rearranged as a mosque, in the manner described at pp. 68, 69. It measures externally 133 ft by 120 ft. The mosque itself has four rows of fifteen columns each, and three domes. The cloisters surrounding the courts are only two rows in depth, and had originally sixty-eight pillars, smaller than those of the mosque. Externally it has no great beauty, but its pillared court is very picturesque and pleasing. According to an inscription over its principal gateway, its conversion was effected by Ibrâhîm Shâh of Jaunpur, A D. 1406[1]

At a later age, and even after it had lost its independence, several important buildings were erected in the capital and in other towns of the kingdom in the style of the day; but these are perhaps scarcely of sufficient importance to require notice in such a work as the present

[1] General Cunningham's 'Reports,' vol. i. p 287. From this I learn that shortly before 1857 the pillars surrounding the court on three sides had been removed since I saw them in 1836.

CHAPTER V.

GUJARÂT.

CONTENTS

Jâmi' Masjid and other Mosques at Ahmadâbâd—Tombs and Mosques at Sarkhej and Batwâ—Buildings in the Provinces.

CHRONOLOGY.

Muzaffar Shâh, a Rajput, appointed Viceroy	A.D. 1391	Mahmûd Shâh Begarah	A.D. 1459
Ahmad Shâh, his grandson, founds Ahmadâbâd	1411	Muzaffar Shâh II	1511
Muhammad Shâh the Merciful	1441	Bahâdur Shâh murdered by the Portuguese	1536
Qutbu-d-Dîn Shah; war with Rânâ Kumbha	1454	Muzaffar Shâh III	1561
		Gujarât becomes a province of Akbar's kingdom	1572

OF the various forms which the Saracenic architecture assumed in India, that of Ahmadâbâd may probably be considered as the most elegant, as it certainly is the most characteristic of all. No other form is so essentially Indian, and no one tells its tale with the same unmistakable distinctness.

As mentioned above, the Muhammadans, in the 1st century of the Hijra, made a brilliant attempt to conquer Sindh and Gujarât, and apparently succeeded; but the country was so populous, and its civilisation so great, that the invaders were absorbed, and soon disappeared from the scene.

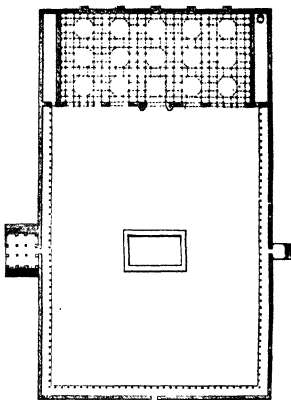
Mahmûd of Ghaznî next overran the province, but left no permanent mark; and even after the fall of Delhi (A.D. 1196) Gujarât maintained the struggle for independence for about a century longer, till 'Alâu-d-Dîn, in 1297, wrested the country from Karna Wâghelâ and appointed provincial governors. Muhammad Shâh III. Tughlaq, in A.D. 1391, had appointed Muzaffar, a converted Rajput, of the Tak clan, to be his viceroy. This, however, was on the eve of the troubles caused by the invasion of Timûrlang, and Muzaffar assumed independence in 1396, but, *mutato domino*, Gujarât remained as independent as before.

The next two centuries—during which the Ahmad Shâhî dynasty occupied the throne—were spent in continual wars and

struggles with their refractory vassals and the neighbouring chiefs. On the whole, however, their power may be said to have been gradually on the increase till the death of Bahâdur, A.D. 1536, but they never wholly subdued the rebellious spirit of their subjects, and certainly never converted the bulk of them to their faith. As a consequence of this, the principal buildings with which this chapter is concerned are to be found in the capital and its immediate proximity. Beyond that the Hindûs followed their old faith and built temples as before; though in such larger cities as Dholkâ, Cambay or Bharoch the Muhammadans, of course, possessed places of worship, some of them of considerable importance, and generally made up from pillars borrowed from Hindû buildings.

In Ahmadâbâd itself, however, the Hindû influence continued to be felt throughout. Even the mosques are Hindû, or rather Jaina, in every detail; only here and there an arch is inserted, not because it was wanted constructively, but because it was a symbol of the faith, while in their tombs and palaces even this is generally wanting. The truth of the matter is, the Hindû kingdom of Gujarât had been in a high state of civilisation before its subjugation by the Muhammadans, and the remains of their temples at Sidhpur, Patân, Modherâ, and elsewhere testify to the building capacity of the race, and the Muhammadans had forced themselves upon this race. The Chaulukyas, however, conquered their conquerors, and forced them to adopt forms and ornaments which were superior to any the invaders knew or could have introduced The result is a style which combines all the elegance and finish of Jaina or Chaulukyan art, with a certain largeness of conception which the Hindû never quite attained, but which is characteristic of the people who at this time were subjecting all India to their sway.

The first seat of the Muhammadan power was Anhilwâd, the old capital of the Gujarât kingdom, and which, at the time it fell into their power, must have been one of the most splendid cities of the East. Little now remains of all its magnificence. Ahmad, the second king, removed the seat of power to a town called Karnâvati, afterwards known as Ahmadâbâd, from the name of its second founder, and which, with characteristic activity, he set about adorning with splendid edifices. Of these the principal was the Jâmi' Masjid, which, though not remarkable for its size, is one of the most beautiful mosques in the East. Its arrangement will be understood from the next plan (Woodcut No. 386). Its dimensions are 382 ft. by 258 ft. over all externally, the mosque itself being 210 ft. by 95 ft., covering consequently about 20,000 sq. ft. Within the mosque itself are 260 pillars. supporting fifteen domes arranged symmetrically,

the centre three alone being somewhat larger and considerably higher than the others. If the plan is compared with that of the

386. Plan of Jâmi' Masjid Ahmadâbâd. Scale 100 ft. to 1 in.

387. Elevation of the Jâmi' Masjid. Scale 50 ft. to 1 in.

temple at Rânpur (Woodcut No. 288), which was being erected about the same time under Kumbha Rânâ, within 160 miles of Ahmadâbâd, it will afford a fair means of comparison between

the Jaina and Muhammadan arrangements of that day. The form of the pillars and the details generally are practically the same in both buildings, the Hindû being richer and more elaborate. In plan, the mosque looks monotonous as compared with the temple; but this is redeemed, to some extent, by the different heights of the domes, as shown in the elevation (Woodcut No. 387), and by the elevation of each division being studiously varied. My own feeling is in favour of the poetry of the temple, but there is a sobriety about the plan of the mosque which, after all, may be in better taste. Both plans, it need hardly be remarked, are infinitely superior to the monotony of the southern halls of 1000 pillars. The latter are remarkable for their size and the amount of labour bestowed upon them; but it requires more than this to constitute good architecture.

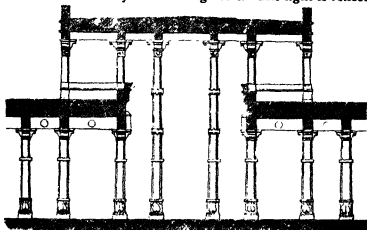
The general character of the elevation will be understood from the Woodcut No. 387, but unfortunately its minarets are gone When Forbes[1] drew it, they were still standing, and were celebrated in Eastern story as the shaking minarets of Ahmadâbâd; an earthquake in A.D 1819 shook them too much, but there are several others still standing in the city from which their form can easily be restored.

The plan and lateral extension of the Jâmi' Masjid are exceptional. The usual form taken by the mosques at Ahmadâbâd was that of the Rânî Rupawantî or Queen's Mosque in the Mîrzapur ward, and consists of three domes standing on twelve pillars each, with the central part so raised as to admit light to the interior (Woodcuts 388, 389). The mode in which this was effected will be understood from the annexed diagram (Woodcut No. 390). The pillars which support the central domes are twice as high as those of the side domes, and two rows of dwarf columns stand on the roof to make up the

388. Plan of the Queen's Mosque, Mirzapur Scale 50 ft to 1 in.

389. Elevation of the Queen's Mosque, Mirzapur. Scale 50 ft to 1 in.

[1] See plate in Forbes' 'Oriental Memoirs,' vol. iii. ch. xxx.; or 'Archæological Survey of Western India,' vol. vii. p. 30.

height. In front of these internally is a solid balustrade, which is generally most richly ornamented by carving. Thus arranged, it will be perceived that the necessary amount of light is introduced, as in the drum of a Byzantine dome, but in a more artistic manner. The sun's rays can never fall on the floor, or even so low as the head of any one standing there. The light is reflected

390 Section of Diagram explanatory of the Mosques at Ahmadâbâd.

from the external roof into the dome, and perfect ventilation is obtained, with the most pleasing effect of illumination without glare. In order further to guard against the last dreaded contingency, in most of these mosques a screen of perforated stonework was introduced between the outer dwarf columns. These screens were frequently of the most exquisite beauty, and in consequence have very frequently been removed.

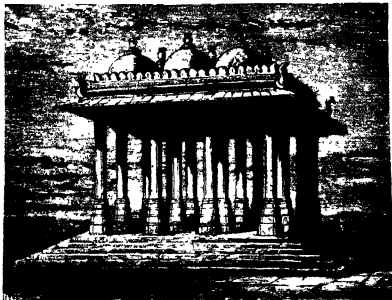
There are three or four mosques at Ahmadâbâd, built on the same pattern as that last described, but as the style progressed it became more and more Indian The arches in front were frequently omitted, and only a screen of columns appeared, supported by two minarets, one at each angle. This system was carried to its greatest extent at Sarkhej, about 5 miles from the city. Muhammad Shâh, in A.D. 1446, commenced erecting a tomb (A on Woodcut No. 391)[1] here, 102 ft. square, in honour of Ahmad Ganj Bakhsh, the friend and adviser of his father. The style of these buildings may be judged of from the woodcut (No. 392, page 235), representing the pavilion of sixteen pillars in front of this tomb (I in Woodcut No. 391). They are of the usual simple outline of the style—a tall, square base;

[1] For a measured plan to three times this scale, see 'Archæological Survey of Western India,' vol. vii. plate 56.

REFERENCES.

- A. Tomb of Ganj Bakhsh
- B. Tombs of Mahmúd Begarah and his Sons.
- C. Tomb of Bibi Rájabái, his Queen
- D. The Mosque
- E. Covered Gateway
- F. Covered Hall overlooking the Tank.
- G. Well and Fountain
- H. Portico leading to Terrace and Steps down to the Tank.
- I. Pavilion
- J. Portions of the Steps surrounding the Tank.

391. Plan of Tombs and Mosque at Sarkhej. (From a Sketch by Sir T. C. Hope.) Scale 100 ft. to 1 in.

the shafts square, and with no ornament except a countersinking on the angles, and crowned with a moderately projecting bracket-capital. The building is roofed with nine small domes,

392 Pavilion in front of Tomb at Sarkhej.

insignificant in themselves, but both internally and externally forming as pleasing a mode of roofing as ever was applied to such a small detached building of this class. The mosque (D), 141 ft. by 65 ft. inside, was completed in A.D. 1451, and Mahmûd Begarah added afterwards a tomb for himself (B), 74 ft. square, and one for his wife Râjabâi (C). With their accompanying palaces and tombs these make up one of the most important groups in the neighbourhood. The whole are constructed without a single arch; all the pillars have the usual bracket capitals of the Hindûs, and all the domes are on the horizontal principle. In the large tomb an attempt has been made to get a larger dome than the usual octagonal arrangement would admit of, by placing it on twelve pillars, but not quite successfully. The duodecagon does not accord with the substructure, and either wider spaces ought to have been introduced or a polygon of a greater number of sides employed. The mosque is the perfection of elegant simplicity, and is an improvement on the plan of the Jâmi' Masjid. There are five domes in a line,

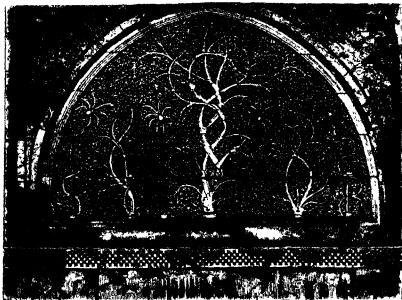
as there, but they are placed nearer to one another, and though of greater diameter the width of the whole is less, and they are only two ranges in depth. Except the Motî Masjid at Agra, to be described hereafter, there is no mosque in India more remarkable for simple elegance than this.

Besides these larger mosques there are several smaller ones of great beauty, of which two—those of Muhâfiz Khân and the Rânî Sîprî—are pre-eminent. The end elevation of the first, built in 1492, is by no means happy, but its details are exquisite and it retains its minarets, which is too seldom the case.[1] As will be seen from the woodcut, as well as from those of the Jâmî and Queen's Mosques (Nos. 387 and 389), the lower part of the minarets is of pure Hindû architecture; all the bases at Ahmadâbâd are neither more or less than the perpendicular parts of the basement of Hindû or Jaina temples elongated. Every form and every detail may be found at Chandrâvati or Âbû, except in one particular — on the sides of all Hindû temples are niches containing images. This the Moslim could not tolerate, so he filled them with tracery. We can follow the progress of the development of this form, from the first attempt in the Jâmi' Masjid, through all its stages to the exquisite patterns of the Queen's Mosque at Mîrzapur After a century's experience they produced forms which as architectural ornaments will, in their own class, stand comparison with any employed in any age or in any part of the world; and in doing this they invented a class of window-tracery in which they were also unrivalled. The specimen below (Woodcut No 394), from a window in the desecrated mosque of Sidi Sayyid in the palace enclosure (the Bhadr) will convey an idea of its elaborateness and grace.[2] It would be difficult to excel the skill with

393. Mosque of Muhâfiz Khân
Scale 25 ft. to 1 in.

[1] The finials of all the early domes and minârs in Gujarât bore the *pippal* leaf; but when this mosque was repaired by the public works about thirty years ago, the Turkish crescent was substituted The Turks themselves only assumed the symbol at Constantinople, after its capture, and hardly before this mosque was completed. The details of this beautiful masjid are pretty fully illustrated in 'Archæological Survey of Western India,' vol. vii plates 97 to 104.

[2] *Ibid.* vol. vii. pp. 41 *et seqq* and plates 46 to 51.

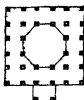
which the vegetable forms are conventionalised just to the extent required for the purpose. The equal spacing also of the subject by the three ordinary trees and four palms, takes it out of the category of direct imitation of nature, and renders it sufficiently structural for its situation; but perhaps the greatest skill is shown in the even manner in which the pattern is spread over the whole surface There are some exquisite specimens of

394 Window in Sidi Sayyid's Mosque at Ahmadâbâd
(From a Photograph by Colonel Biggs.)

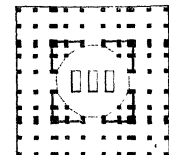
tracery in precious marbles at Agra and Delhi, but none quite equal to this.

Above the roof of the mosques the minarets are always round towers slightly tapering, as in the mosque of Muhâfiz Khân (Woodcut No. 393), relieved by galleries displaying great richness in the brackets which support them as well as in the balustrades which protect them. The tower always terminates in a conical top relieved by various disks. They are, so far as I know, the only minarets belonging to mosques which surpass those of Cairo in beauty of outline or richness of detail, excepting those of the Rânî Sîparî mosque, which are still more beautiful. Indeed, that mosque is the most exquisite gem at Ahmadâbâd, both in plan and detail. It is without

arches, and every part is such as only a Hindû queen could order, and only Hindû artists could carve.[1]

TOMBS.

Knowing the style, it would not be difficult to predicate the form of the tombs. The simplest would be that of Âbû Turâb—an octagonal dome supported on twelve pillars, and this extended on every side, but always remaining a square, and the entrances being in the centre of the faces (Woodcut No. 395). The difference between this and the Jaina arrangement is that the latter is diagonal (Woodcut No. 179, vol. i.), while these are square. The

395. Tomb of Mir Abû Turâb. Scale 50 ft. to 1 in.

superiority of the Hindû mode is apparent at a glance. Not, it is true, in so small an arrangement as that last quoted, but in the tombs at Sarkhej (Woodcut No. 391), the effect is so monotonous as almost to become unpleasing. With the Jains this never is the case, however numerous the pillars may be.

396. Plan and Elevation of Tomb of Sayyid 'Usmân. Scale 50 ft. to 1 in.

Besides the monotony of the square plan, it was felt at Sarkhej—as already pointed out—that the octagonal dome fitted awkwardly on to its supports. This was remedied, to a great extent, in the tomb of Sayyid 'Usmân, built in A.D. 1460 by Mahmûd Begarah. In this instance the base of the dome is a dodecagon, and a very considerable amount of variety is obtained by grouping the pillars in twos and fours, and by the different spacing (Woodcut No. 396). In elevation the dome looks heavy for the substructure, but not so in perspective;

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[1] As it is impossible by a woodcut to convey an impression of the beauty of these mosques, the reader is referred to the drawings and photographs in vols. vii. and viii. of the 'Archæological Survey of Western India,' and the photographs in Fergusson and Hope's 'Architecture of Ahmedabad,' etc. (1866).

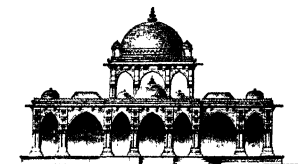
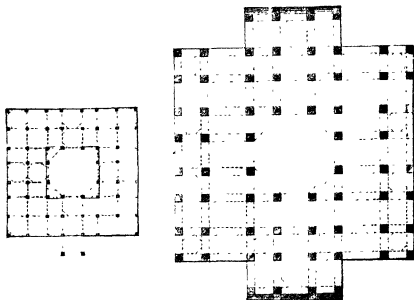
and when the screens were added to enclose the central square, it was altogether the most successful sepulchral design carried out in the pillared style at Ahmadâbâd.

Towards the end of their career, the architects of Ahmadâbâd evinced a strong tendency to revert to the arched forms generally used by their brethren in other countries. For Sayyid Mubârak, one of Mahmûd Begarah's ministers, a tomb was built in 1484, near Mahmûdâbâd, which is wholly in the arched style, and remains one of the most splendid sepulchres in India.[1] He also erected at Batwâ, near Ahmadâbâd, a tomb over the grave of a saint, which is in every respect in the same style. So little, however, were the builders accustomed to arched forms, that, though the plan is judiciously disposed by placing smaller arches outside the larger, so as to abut them, still all those of the outer range have either fallen down, or, as has been suggested, were never erected, and the whole is very much crippled, while the tomb without arches, that stands within a few yards of it, remains entire. The scale of the two, however (Plan, No. 398), reveals the secret of the preference accorded to the arch as a constructive expedient. The larger piers, the wider spacing, the whole dimensions, were on a grander scale than could be attained with beams only, as the Hindûs used them. As the Greeks and Romans employed these features, any dimensions that were feasible with arches could be attained by pillars; but the Hindûs worked to a smaller modulus, and do not seem to have known how to increase it. It must, however, be remarked that they generally used pillars only in courts, where there was nothing to compare them with but the spectator's own height; and there the forms employed by them were large enough. It was only when the Moslims came to use them externally, and in conjunction with arches and other larger features, that their diminutive scale became apparent.

It is perhaps the evidence of a declining age to find size becoming the principal aim. But it is certainly one great and important ingredient in architectural design, and so thought the later architects of Ahmadâbâd. In their later mosques and buildings they attained greater dimensions, but it was at the expense of all that renders their earlier style so beautiful and so interesting.

Besides the buildings of the classes above enumerated, there are several smaller objects of art at Ahmadâbâd which are of extraordinary beauty. Among these are several *baolis*, *wâvs*, or deep wells, with broad flights of steps leading down to them, and ornamented with pillars and galleries to as great an extent

[1] Described further on, p. 244, Woodcuts Nos. 400 and 401.

as some of the largest buildings above ground. It requires a personal experience of the grateful coolness of a subterranean

397 Tomb of Qutbu-l 'Alam Batwâ. Scale 50 ft. to 1 in.

398 Plans of Tombs of Qutbu-l 'Alam and his Son at Batwâ.
Scale about 50 ft. to 1 in.

apartment in a hot climate to appreciate such a class of buildings, and in the rainy West we hardly know how valuable water may become.[1]

[1] For an illustrated account of some of the Wâvs at or near Ahmadâbâd, *see* 'Archæological Survey of Western India,' vol. viii. pp. 1-6 and 10-14; at Mahmûdâbâd, vol. vi. pp. 46, 47; and in North Gujarât, vol. ix. pp. 37f. and 112f.

Another object of architectural beauty is found in the inflow and outflow sluices of the great tanks which abound everywhere around the city. Nowhere did the inhabitants of Ahmadâbâd show how essentially they were an architectural people, as in these utilitarian works It was a necessity of their nature that every object should be made ornamental, and their success was as great in these as in their mosques or palaces.

BUILDINGS IN THE PROVINCES.

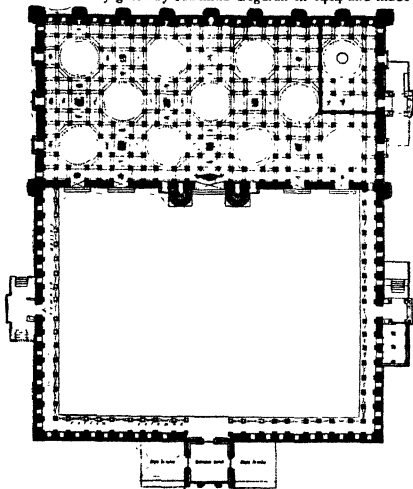
In addition to the numerous edifices that adorn the capital, there are, as hinted above, several in the provincial capitals that are well worthy of notice. Among these the Jâmi' Masjid at Cambay or Kambhât, is one of the most splendid. It was erected in A D. 1325, in the time of Muhammad II. ibn Tughlaq, and is only inferior to that of the capital in size. It measures over all 200 ft. by 210 ft, and its internal court 120 ft. by 135 ft. Except being somewhat smaller in scale, its plan and arrangements are almost identical with those of the Altamsh Mosque (Woodcuts Nos 375, 376) at Ajm... but, when it is looked into, it would be difficult to conceive two buildings more essentially different than these two are The screen of arches at Cambay, only three in number, are plain even to baldness, and low, in order to fit the dimensions of the Hindû or Jaina pillars of the interior. These latter are all borrowed from desecrated temples, and in this instance certainly rearranged without much attention to congruity or architectural effect. Still the effect is picturesque, and the parts being employed for the purposes for which they were designed, there is no offensive incongruity anywhere.

One of the most remarkable features in this mosque is the tomb, which its founder, 'Umar bin-Ahmad al Kâzarûnî, in 1333, erected for himself It stands in an enclosure about 49 ft. wide along the south end of the court, is wholly composed of Hindû remains, and is two storeys in height, and was crowned with a dome 37 ft. in diameter The parts, however—borrowed, apparently, from different buildings — were so badly fitted together that, after standing some three centuries, it fell in, and has since remained a ruin, singularly picturesque in form and exquisite in detail, but a monument of the folly of employing building materials for any purpose but that for which they were designed.[1]

There is another mosque at Bharoch, not unlike this one in design but smaller, being only 135 ft. over all north and south,

[1] For an account and drawings of the Cambay Mosque, etc., see 'Archæological Survey of Western India,' vol. vi. pp 23-29 and plate 17 to 24.

and it has—now, at least—no courtyard; but some of its details, borrowed from Hindû temples, are very beautiful.[1]

About 80 miles south-east from Ahmadâbâd is Châmpânîr, which was subjugated by Mahmûd Begarah in 1484 and made

399. Plan of the Jâmi' Masjid at Châmpânîr. Scale 50 ft. to 1 in.

his new capital. Here he erected a Jâmi' Masjid, which was finished in 1508 and may fairly be regarded as architecturally the finest in Gujarât. It measures outside 178 ft. from north to south by 216 ft. from west to east. The court in front had

[1] 'Archæological Survey of Western India,' vol. vi. pp. 20 *et seqq.* and plates 2-16.

open arcades on three sides, now much ruined, and was entered from minor porches on the north and south with a larger and richly carved one on the east front. The mosque itself is in tolerable preservation and of large size, being 169 ft. 6 in. in length by 81 ft. inside the walls, and, like that at Ahmadâbâd, it has three rows of domes but quite differently arranged. There are, as will be seen from the plan (Woodcut No. 399), four domes in the front and back rows and in the middle only three, but disposed opposite the spaces separating the domes in the other rows. By this peculiar arrangement these eleven domes, each 20 ft 6 in. in diameter, provide for seven mihrâbs or qiblas in the west wall. There are five arched entrances—the central one, as usual, being the loftiest and double the width of the others. On each side of it rise the minârs to a height of 100 ft., and the façade wall, for a width of 51 ft., is raised to a height of nearly 50 ft. The central dome, with the area within the entrance, rises behind this to a height of three storeys with their two galleries. At the four corners of the mosque are turrets 50 ft. high, carved up to the roof level, but above they are plain and have a rather clumsy appearance[1]

400. Plan of Tomb of Mubârak Sayyid, near Mahmûdâbâd Scale 50 ft. to 1 in.

There are also two very beautiful mosques at Dholkâ, a city 23 miles south-west from Ahmadâbâd. One of them, known as Hilâl Khân Qâzi's, measures inside the walls 142 ft. from north to south, by 147 ft., inclusive of the Masjid, which is 35 ft. deep. It has three arches in the central and higher part of the façade, and a smaller opening—for a perforated stone window, in each wing. It was erected in 1333, and has two small turrets over the front, a fine marble *mimbar* or pulpit, a beautiful roof of panels taken from Hindû temples, and a remarkably fine porch and doorway at the entrance to the court.[2] The second is the Jâmi' Masjid, measuring 142 ft. from north to south inside,

[1] For an illustrated account of this mosque, see 'Archæological Survey of Western India,' vol. vi. pp. 39ff. and plates 56-65

[2] 'Archæological Survey of Western India,' vol. vi. pp. 30f., and plates 25 to 34.

also with five domes—three in the middle of the facade, and one in each of the wings. It was erected about 1485, with minarets on each side the central arch of a pattern similar to those at Ahmadâbâd. A third mosque, erected in 1361 almost entirely of materials from Hindû temples, is known as the Tânkâ Masjid.[1]

The most beautiful, however, of these provincial examples is the tomb at Mahmûdâbâd, of its class one of the most beautiful in India (Woodcuts Nos. 400 and 401). It was erected in the reign of Mahmûd Begarah, A.D. 1484, for Mubârak Sayyid, one of his ministers. It was under the same sovereign that the tomb of Qutbu-l 'Alam was erected at Batwâ, described

401. Tomb of Mubârak Sayyid near Mahmûdâbâd. (From a Photograph.)

above (Woodcut No. 398), and is said to have been designed by the same architect. This is, however, a far more successful example, and though small—it is only 94 ft. square, exclusive of the porch—there is a simplicity about its plan, a solidity and balance of parts in the design, which is not always found in these tombs, and has rarely, if ever, been surpassed in any

[1] 'Archæological Survey of Western India,' vol. vi. pp. 32f. and plates 28-34; pp. 36f. and plates 50-54.

tomb in India. The details, too, are all elegant and appropriate, so that it only wants somewhat increased dimensions to rank among the very first of its class Its constructive arrangements, too, are so perfect that no alterations in them would be required, if the scale had been very much increased

The tomb itself is surrounded by a screen of perforated stone-work of the very finest tracery, and with its double verandah aids in giving the sepulchral chamber that seclusion and repose so indispensable in a mausoleum [1]

[1] 'Archæological Survey of Western India,' vol vi pp 45f and plates 1, 71 to 75. For a fuller account of the Muhammadan architecture of Gujarat with numerous drawings and photographs, vols vi to ix of the same Western India Survey may be consulted

CHAPTER VI.

MALWA

CONTENTS.

Dhâr—The Great Mosque at Mandû—The Palaces.

CHRONOLOGY.

Sultân Dilâwar Ghûri	A.D.	1401	Sultân Ghiyâs Shâh Khaljî	A.D.	1475
Sultân Hûshang Ghûrî	,,	1405	Sultân Nâsir Shâh	,,	1500
Muhammad Ghaznî Khân	,,	1434	Sultân Mahmûd II.	,,	1510
Mahmûd Shâh I Khaljî, cotemp. Rânâ Kumbha of Chitor	,,	1436	Mâlwâ incorporated with Gujarât	,,	1530
			—— annexed by Akbar	,,	1569

THE Ghûrî dynasty of Mandû attained independence about the same time as the Sharqîs of Jaunpur,—Sultân Dilâwar, who governed the province of Mâlwâ from A.D 1387, having assumed the title of Shâh in A.D. 1401 It is, however, to his successor Hûshang, that Mandû owes its greatness and all the finest of its buildings. The state continued to prosper as one of the independent Moslim principalities till A.D. 1530, when it was incorporated with Gujarât, and was finally annexed to Akbar's dominion in A.D. 1569.

The original capital of the state was Dhâr, an old Hindû city, about 24 miles northward of Mandû, to which the seat of government was transferred after it became independent. Though an old and venerated city of the Hindûs, Dhâr contains no evidence of its former greatness, except two mosques erected wholly of Hindû remains The principal of these, the Jâmi' Masjid, has a courtyard measuring 102 ft. north and south, by 131 ft. in the other direction. The mosque itself is 119 ft. by 40 ft. 6 in., and its roof is supported by sixty-four pillars of Hindû architecture, 12 ft. 6 in. in height, and all of them more or less richly carved, and the three domes that adorn it are also of purely Hindû form. The court is surrounded by an arcade containing forty-four columns, 10 ft. in height, but equally rich in carving. There is here no screen of arches, as at the Qutb or at Ajmîr. Internally nothing is visible but Hindû pillars, and,

except for their disposition and the prayer-niches that adorn the western wall, it might be taken for a Hindû building. In this instance, however, there seems no doubt that there is nothing *in situ*. The pillars have been brought from desecrated temples in the town, and arranged here by the Muhammadans as we now find them, probably before the transference of the capital to Mandû.

The other mosque is similar to this one, and only slightly smaller. It has long, however, ceased to be used as a place of prayer, and is sadly out of repair. It is called the Lât Masjid, from an iron pillar which lay half-buried in front of its gateway. This is sometimes supposed to have been a *jayastambha* or pillar of victory, like that at the Qutb; but this can hardly be the case. If it were intended for an ornamental purpose, it would have been either round or octagonal, and had some ornamental form. As it is, it is broken into three pieces, the longest measuring 24 ft. 3 in., the end being about 11 in. square, but above 2 ft from it, is about 10⅝ in square; the second section is 11 ft. 7 in. long, about three-fourths of which is square and the remainder octagonal; and the third piece is of 7 ft. 6 in. and octagonal with the exception of a circular collar at the end.[1] My impression is, that it was used for some useful constructive purpose, like those which supported the false roof in the Sun-temple at Kanârak (*ante*, page 107). There are some holes into it, which might tend to make this view of its origin probable. But, be this as it may, it is another curious proof of the employment of large masses of iron by the Hindûs at a time when they were supposed to be incapable of any such mechanical exertion. Its date is probably that of the pillars of the mosques where it is found, and from their style they probably belong to the 10th or 11th century.

The site on which the city of Mandû is placed is one of the noblest occupied by any capital in India. It is an extensive plateau, detached from the mainland of Mâlwâ by a deep ravine about 300 to 400 yards across, where narrowest, and nowhere less than 200 ft. in depth. This is crossed by a noble causeway, defended by three gateways, and flanked by tombs on either hand. The plateau is surrounded by walls erected on the brink of the cliff—it is said 28 miles in extent. This, however, conveys a very erroneous idea of the size of the place, unless qualified by the information that the walls follow the sinuosities of the ravines wherever they occur, and many of these cut into the hill a mile or two, and are only half a mile across. The plateau may be

[1] H. Cousens in 'Archæological Survey Annual Report, 1902-1903,' pp. 205ff.

4 or 5 miles east and west, and 3 miles north and south, most pleasingly diversified in surface, abounding in water, and fertile in the highest degree, as is too plainly evidenced by the rank vegetation, which was tearing the buildings of the city to pieces or obscuring them so that, till quite lately, they could hardly be seen.

The Delhi gate on the north of the fortifications by which they are entered, has been a fine lofty structure, though now much ruined: it also is purely Pathân in style, but unusually elegant in proportions and decoration.

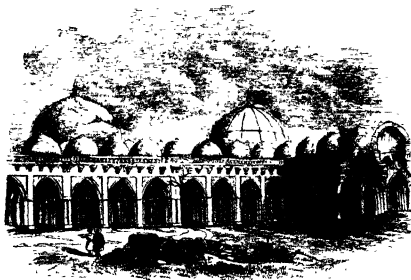
The finest building in the city is the Jâmi' Masjid, commenced by Hûshang Shâh, the second king, who reigned from A.D. 1405 to A.D. 1434, but it was only finished by Mahmûd Shâh I. in 1454. Though not very large, it is so simple and grand in outline and details, that it ranks high among the monuments of its class. Its dimensions are externally 290 ft. from east to west, exclusive of the porch on the east—which projects about 55 ft.—by 271 ft. from north to south.

Internally, the courtyard is almost an exact square of 162 ft., and in other respects the four sides of the court are exactly similar, each being ornamented by eleven great arches of precisely the same dimensions and height, supported by piers or pillars, each 10 ft. high, of one single block of red sandstone. The only variety attempted is, that the east side has two arcades in depth, the north and south three while the west side, or that facing Mecca, has five, besides being ornamented by three great domes, each 42 ft. in diameter.

402. Sketch plan of Mosque at Mandû. Scale 114 ft. to 1 in.

As will be seen on the plan (Woodcut No. 402), these large domes are supported each by twelve pillars. The pillars are all equally spaced, the architect having omitted,

for the sake of uniformity, to widen the central avenues on the intersection of which the domes stand. It follows from this that the four sides of the octagon supporting the dome, which are parallel to the sides of the court, are shorter than the four diagonal sides. Internally, this produces a very awkward appearance; but it could not have been avoided except by running into another difficulty — that of having oblong spaces at the intersections of the wider aisles with the narrower, to which the smaller domes must have been fitted. Perhaps, on the whole, the architect took the less inconvenient course of the two.

The interior of the court is represented in Woodcut No. 403, and for simple grandeur and expression of power it may, perhaps,

403. Courtyard of Great Mosque at Mandû (From a Sketch by the Author.)

be taken as one of the very best specimens now to be found in India. It was, however, fast falling to decay, and a few years ago considerable repairs were executed on it and others of the Mandû monuments at the expense of the Dhâr state.

The tomb of the founder, which stands behind the mosque, though not remarkable for size, is a very grand specimen of the last resting-place of a stern old Pathân king. Both internally and externally it is reveted with white marble, artistically, but not constructively, applied, and consequently was in many places peeling off. The light is admitted by the doorway and

two small windows by the sides of it, and by three perforated marble screens on the north side, so that the interior is not more gloomy than seems suitable to its destination.

On one side of the mosque is a splendid Dharmasâla or hall, 230 ft. long, supported by three ranges of pillars, twenty-eight in each row. These are of a pattern purely Hindû; only on the capitals the *kîrttimukh* or horned gorgon face, so frequent in Hindû decoration, has been hewn into a group of leaves of the same outline; and on the north side is a porch, of which the pillars and style are purely Hindû.

The palaces of Mandû are, however, perhaps even more remarkable than its mosques Of these the principal is called Jahâz Mahall or "water palace," from its being situated between two great tanks—almost literally in the water, like a "ship." It is a massive structure, the eastern façade being about 360 ft. long and 40 ft. in height, in the centre of which is the arched entrance, faced with marble, and still in fair preservation; over it is a projecting cornice supported on brackets, above which is a bracketed balcony under an oblong pavilion. In the front of the lower storey on each side are five arches under a deep overhanging cornice, and over each end of the façade is a domed pavilion. On one side is a ruined wing of the palace branching off from it; and on the opposite side were other apartments and a stair leading up to the roof. Seen from the west, where it overhangs the lake, this is altogether a striking building. Its mass and picturesque outline make it one of the most remarkable edifices of its date, very unlike the refined elegance afterwards introduced by the Mughals, but well worthy of being the residence of an independent Pathân chief of a warrior state.

The principal apartment is a vaulted hall, some 24 ft. wide by twice that length, and 24 ft in height, flanked by buttresses massive enough to support a vault four times its section. Across the end of the hall is a range of apartments three storeys in height, and the upper ones adorned with rude, bold, balconied windows Beyond this is a long range of vaulted halls, standing in the water, which were apparently the living apartments of the palace. Like the rest of the palace they are bold, and massive to a degree seldom found in Indian edifices, and produce a corresponding effect.

On the brink of the precipice overlooking the valley of the Narbadâ is another palace, called that of Bâz Bahâdur, of a lighter and more elegant character—built apparently by Nâsiru-d-Dîn Khaljî in 1509, but even more ruined than the northern palace — some portions of the courtyards and the cupolas over the colonnades are almost the only parts that

remain. On the hill above is what is known as Rûpamatî's Chhatri, still in fair preservation.

North of the Jâmi' Masjid stands the Hindola Mahall or Palace, which, with its massive masonry, is in rather better preservation than the others. The sloping, buttressed walls, projecting balconies and deep-set windows of this fine building present an appearance of great strength; and the great hall within, 88 ft. 6 in. long by 24 ft. wide and 38 ft. high, its roof supported on arches, was a splendid apartment. To the north of this were store-rooms below, and above the Zanâna apartments: and at some distance to the west are the large underground cisterns and *tah-khânas*, or hot-weather retreats of the Champâ well or *baulî*. These indicate the care and taste bestowed on such appendages of a Muhammadan palace 500 years ago.

The Nahâr Jharokhâ Palace is to the north of the Hindola Mahall, and also within the walled enclosure; and outside is Dilâwar Khân Ghûrî's mosque, the oldest in Mandû (1405), constructed of materials taken from Hindû shrines. It has, however, a simplicity of structure about it characterising it as a typical Pathân work.

About 80 yards to the south of the Jahâz Mahall is the Tawilî Mahall, a three-storeyed building, with its rows of lofty Saracenic arches below deep stone eaves and heavy windowless upper storeys It lies across a beautiful foreground of water and ruins.

Scattered over the whole plateau are ruins of tombs and buildings of every class and so varied as almost to defy description. In their solitude, in a vast uninhabited jungle, they convey as vivid an impression of the ephemeral splendour of these Muhammadan dynasties as anything in India, and, if properly illustrated, would alone suffice to prove how wonderfully their builders had grasped the true elements of architectural design.

Here, as elsewhere, the available materials have exercised a marked influence upon the architecture; the prevalence of a red sandstone is emphasised in the piers of the Jâmi' Masjid—more than 300 of them being each of a single block of this material; and for more decorative purposes marble, both white and coloured, was freely used to revet the walls and piers. We have here a strictly arcuate style, without admixture of the general trabeate structural methods followed by the native Hindûs; and while at Jaunpur and Ahmadâbâd, at the same period, we find the strong influence of native methods copied in the Muhammadan architecture, at Mandû the borrowing or imitating of such forms seems to have been suppressed, and

the builders clung steadily to the pointed arch style, without any attempt, however, at groining—so successfully employed at a later period by the Mughal architects.[1]

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[1] 'History of Mandu, by a Bombay Subaltern' (Lieut. Blake), Bombay reprint, 1875; Capt. C. Harris, 'Ruins of Mandoo,' fol. (1860); 'Journal of the Bombay Br. R. Asiatic Society,' vol. xix. (1895), pp. 154-201; vol. xxi. (1902), pp. 378-391; 'Archæological Survey Annual Report, 1903-1904, pp. 30-45.

CHAPTER VII.

BENGAL.

CONTENTS.

CAPITAL—GAUR.

IT is not very easy to understand why the architects of Mâlwâ should have adopted a style so essentially arcuate as that which we find in the capital, while their brethren, on either hand, at Jaunpur and Ahmadâbad, clung so fondly to a trabeate form wherever they had an opportunity of employing it. The Mandû architects had the same initiation to the Hindû forms in the mosque at Dhâr, and there must have been innumerable Hindû and Jaina temples to furnish materials to a far greater extent than we find them utilised, but we neither find them borrowing nor imitating, but adhering steadily to the pointed-arch style, which is the essential characteristic of their art in foreign countries. It is easy to understand, on the other hand, why in Bengal the trabeate style never was in vogue. The country is practically without stone, or any suitable material for forming either pillars or beams. Having nothing but brick, it was almost of necessity that they employed arches everywhere, and in every building that had any pretensions to permanency. The Bengal style being, however, the only one wholly of brick in India Proper, has a local individuality of its own, which is curious and interesting, though, from the nature of the material, deficient in many of the higher qualities of art which characterise the buildings constructed with larger and better materials. Besides elaborating a pointed-arched brick style of their own, the Bengalis introduced a new form of roof, which has had a most important influence on both the Muhammadan and Hindû styles in more modern times. As already mentioned in describing the Chhatrî at Alwar (*ante*, p. 169), the Bengalis, taking advantage of the elasticity of the bambu, universally

employ in their dwellings a curvilinear form of roof, which has become so familiar to their eyes, that they consider it beautiful (Woodcut No. 404). It is so in fact when bambu and thatch are the materials employed, but when translated into stone or brick architecture, its taste is more questionable There is, however, so much that is conventional in architecture, and beauty depends to such an extent on association, that strangers are hardly fair judges in a case of this sort. Be this as it may, certain it is, at all events, that after being elaborated into a feature of permanent architecture in Bengal, this curvilinear form found its way in the 17th century to Delhi, and in the 18th to Lâhor, and all the intermediate buildings from, say A.D. 1650, betray its presence to a greater or less extent.

404 Modern Curved Form of Roof

It is a curious illustration, however, of how much there is in architecture that is conventional, and how far familiarity may render that beautiful which is not so abstractedly that, while to the European eye this form always remains unpleasing, to the native eye—Hindû or Muhammadan—it is the most elegant of modern inventions[1]

Even irrespective, however, of its local peculiarities, the architecture of Gaur, the Muhammadan capital of Bengal, deserves attention for its extent and the immense variety of detail which it displays. It was in A.D. 1193 that Qutbu-d-Dîn Aibak captured Delhi, and in the same year Muhammad Bakhtyâr Khalji extended the Moslim conquests down the Ganges as far as Bengal. Immediately he took Nadiya he established himself, in 1194, as governor at Lakhnautî or Gaur, in which office he was afterwards confirmed by the Sultân. The successive governors ruled with almost independent authority, and in 1282 Nâsiru-d-Dîn Bughra Khân, a son of the emperor Ghiyâsu-d-Dîn Balban, was appointed governor, and the office became hereditary in his family. In 1338 Fakhru-d-Dîn Mubârak rebelled and slew the governor Qadar Khân, and separate governors ruled in East and West Bengal. But, in 1345, Shamsu-d-Dîn Ilyâs assassinated the ruler of West Bengal,

[1] In this respect it is something like the curvilinear pediments which Roman and Italian architects employed as window heads. Though detestable in themselves, yet we use and admire them because we are accustomed to them.

and in 1352 defeated Ikhtiyâru-d-Dîn Ghâzi Shâh of East Bengal. He thus became the founder of the Purbîya dynasty, which ruled for about a century and a half, or till 1487, when the throne was usurped by Habshîs and subsequently, in 1493, by 'Alâu-d-Dîn Husain Shâh. But in the reign of his son Mahmûd, Sher Khân, the Afghân ruler of Bihâr, invaded Bengal in 1537, and completely sacked Gaur, after which this once great and wealthy capital began to decay and its buildings became neglected. The state was absorbed into Akbar's vast kingdom in A.D. 1576, under Dâ'ûd Shâh bin Sulaimân. Though none of these rulers did anything that entitles them to a place in general history, they possessed one of the richest portions of India, and employed their wealth in adorning their capital with buildings, which, when in a state of repair, must have been gorgeous, even if not always in the best taste. The climate of Bengal is, however, singularly inimical to the preservation of architectural remains. If the roots of a tree of the fig kind once find a resting-place in any crevice of a building, its destruction is inevitable; and even without this, the luxuriant growth of the jungle hides the building so completely, that it is sometimes difficult to discover it—always to explore it. Add to this that Gaur is singularly well suited to facilitate the removal of materials by water-carriage. During the summer inundation, boats can float up to any of the ruins, and after embarking stones or bricks, drop down the stream to any new capital that may be rising. It thus happens that Murshidâbâd, Mâldâ, Rangpur, and Râjmahal have been built almost entirely with its materials, whilst Hugly, and even Calcutta, are rich in spoils of the old capital of Bengal, while it has itself become only a mass of picturesque but almost indistinguishable ruins.

The city of Gaur was a famous capital of the Hindûs long before it was taken possession of by the Muhammadans. The Sena and Pâla dynasties of Bengal seem to have resided here, and no doubt adorned it with temples and edifices worthy of their fame and wealth. These, however, were probably principally in brick, though adorned with pillars and details in what used to be called black marble, but seems to be an indurated potstone of very fine grain, and which takes a beautiful polish. Many fragments of Hindû art in this material are found among the ruins; and if carefully examined might enable us to restore the style. Its interest, however, principally lies in the influence it had on the Muhammadan style that succeeded it. It is neither like that of Delhi, nor Jaunpur, nor any other style, but one purely local, and not without considerable merit in itself; its principal characteristic being heavy short pillars of stone supporting pointed arches and vaults in

brick—whereas at Jaunpur, for instance, light pillars carried horizontal architraves and flat ceilings.

The general character of the style will be seen in the example from a mosque called the Qadam-i-Rasûl at the south-east gate of the fort at Gaur, and is by no means devoid of architectural merit (Woodcut No 405)[1] The solidity of the supports go far to redeem the inherent weakness of brick archi-

405 Qadam-i-Rasul Mosque, Gaur (From a Photograph.)

tecture, and by giving the arches a firm base to start from, prevents the smallness of their parts from injuring the general effect The façade is relieved by horizontal mouldings and panels of moulded brick, whilst string-courses of the same extend its whole length. It also presents, though in a very subdued form, the curvilinear form of the roof, which is so characteristic of the style.

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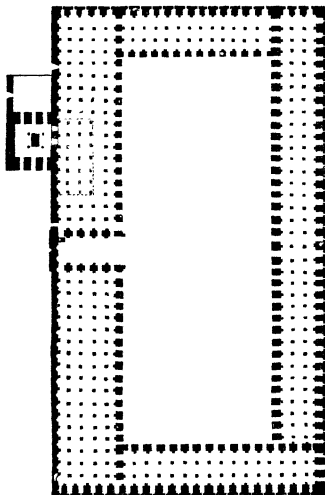
[1] It was built by Nasrat Shâh, A D 1530, to contain a stone brought by his father Husain Shâh (1493-1519) from Mecca, bearing the supposed impression of Muhammad's foot — *qadam-i-rasûl*, which is revered by Moslims.

In Gaur itself, the Golden or Sonâ Masjid, called the Bârah Darwâza, or twelve-doored, is a very handsome mosque. The façade is in stone, and covered with foliaged patterns in low-relief, borrowed evidently from the terra-cotta ornaments which were more frequently employed, and continued a favourite mode of adorning façades down to the time of the erection of the Kântanagar temple illustrated above (Woodcut No. 354). In the interiors of the mosques the pillars have generally been removed, and the vaults consequently fallen in, so that it is not easy to judge of their effect, even if the jungle would admit of the whole area being grasped at once. Their general disposition may be judged of, however, by the plan on next page (Woodcut No. 406) of the Âdînah mosque at Panduâ, which formed at the time it was erected the northern suburb of the capital.

The Bârah Sonâ Masjid, outside the fort to the north-east, is perhaps the finest memorial now left at Gaur. Built by Nasrat Shâh in 1526, it is 168 ft. in length by 76 ft. outside, with walls 8 ft. thick and faced inside and out with hornblende. It has eleven arched entrances in front, each 5 ft. 11 in. wide, and 14 ft. high These enter the front corridor, the arches of which support the eleven domes of the roof. Beyond this is the masjid proper, of which the roof has all fallen; it had three longitudinal aisles, supported by twenty pillars, and there were eleven mihrâbs in the wall. At both sides of the doorways at the ends of the corridor, and at the back corners were polygonal minarets of brown basalt, six in all, but their heads are now ruined. From its massive solidity and size this is an imposing building; indeed this characteristic of the Gaur architecture forms a striking contrast to the lighter arcades of much of the Saracenic style.

From inscriptions upon it, it appears that the Âdînah masjid was erected by Sikandar Shâh, one of the most illustrious of his race (A.D. 1358-1389), with the intention of being himself buried within its precincts, or in its immediate neighbourhood.[1] Its dimensions are considerable, being nearly 507 ft. north and south, and 285 ft. east and west. In the centre it contains a courtyard nearly 400 ft. by 154 ft., surrounded on all sides by a thick wall of brick, divided by eighty-nine similar arched openings, only one of which, that in the centre of the west side facing Mecca, is wider and more dignified than the rest. The roof in like manner was supported by some 260 pillars about 2 ft. square, at the base and 10 ft. 5 in. high—some of one block of black hornblende and others built similar in design to those represented in Woodcut No. 405. They are bold and pleasing in

[1] His ruined tomb is attached to the west wall near its north end.

design, but it must be confessed wanting in variety. These with the walls supported no less than 378 domes, all similar in design and construction. The only variation that is made is where a platform, called the Bâdshâh-ka-Takht, the King's

406. Plan of Âdînah Mosque, Panduâ. Scale 100 ft. to 1 in.

Throne or Royal Gallery, divides a part of the building into two storeys. This is supported by twenty-one short pillars of much heavier form, and has others, monolithic, and of a more elegant style above. But the roof has fallen and very few of the other supporting pillars are intact.

A design, such as that of the Âdînah mosque, would be appropriate for a caravanserai; but in an edifice where expression and beauty were absolutely required it is far too monotonous. The same defect runs through the whole group; and though their size and elegance of details, joined with the picturesque state of richly foliaged ruin in which they were long found, made them charming subjects for the pencil, they possess all the defects of design we remarked in the great halls of a thousand columns in the south of this country.[1] It seems, indeed, almost as if here we had again got among the Tamil race, and that their peculiarities were reappearing on the surface, though dressed in the garb of a foreign race.

Two miles to the south-west of the Âdînah masjid is the Eklâkhî mosque or tomb, for it is said to be the tomb of Ghiyâsu-d-Dîn 'Azâm Shâh (1390-1397), but there is no inscription to show this, and it may have been the work of Jalâlu-d-Dîn Muhammad Shâh (1414-1443), who was a great builder. It is 80 ft. square and covered by one dome. Much of the materials have been taken from Hindû temples, the structure being built of hornblende slabs and brick, with much embossed brick used in the decoration. The corner buttresses are richly carved, reminding one of the bases of minarets, but they had only a capstone above the level of the roof, the corners of which curve downwards on each face. Though much smaller, this was altogether a bolder and architecturally finer structure than the Âdinah mosque.

407. Minâr at Gaur (From a Photograph by J. H. Ravenshaw, B.C.S.)

One of the most interesting of the antiquities of the place is a minâr, standing just outside the fort to the east (Woodcut No. 407). For two-thirds of the height it is a polygon of twelve sides; above that circular, till it attains the height of 84 ft. The door

[1] *Ante*, vol. i. page 368, *et seqq.*

is at some distance from the ground, and altogether it looks more like an Irish round-tower than any other example known, though it is most improbable that there should be any connection between the two forms. Probably a platform about 15 ft. in height once surrounded the base, but if so, it has entirely disappeared. Inside, a spiral stair leads to the small chamber on the summit, once roofed by a dome. It is perhaps a pillar of victory—a Jaya-Stambha—such as the Qutb Minâr at Delhi, and those at Koil, Daulatâbâd, and elsewhere. There is said to have been an inscription on this monument which ascribed its erection to Saifu-d-Dîn Firuz Shâh II., who reigned in Gaur A.D. 1488-1490, and the character of the architecture fully bears out this adscription. The native tradition is, that a saint, Pîr Âsâ,[1] lived, like Simon Stylites, on its summit!

Besides these, there are several of the gateways of Gaur which are of considerable magnificence. The finest is that called the Dâkhil or Salâmi gateway, the north entrance into the fort, said to have been built by Ruknu-d-Dîn Bârbak Shâh (1460-1474), which, though of brick, and adorned only with terra-cotta ornaments, is as grand an object of its class as is to be found anywhere. The gate of the citadel, and the southern gate of the city, are very noble examples of what can be done with bricks, and bricks only. The latter of these, known as the Kotwâlî Darwâza, is a handsome and imposing gateway leading from the south side of the old city, and, except above, is in pretty good preservation. To the apex of the arch is 31 ft. and the depth is 51 ft., and on the south it was provided with semicircular abutments on each side for the military guard.[2]

It is not, however, in the dimensions of its buildings or the beauty of their details that the glory of Gaur resides; it is in the wonderful mass of ruins stretching along what was once the high bank of the Ganges, for nearly twenty miles, from Panduâ southwards—mosques still in use, mixed with mounds covering ruins—tombs, temples, tanks and towers, scattered without order over an immense distance, and long half buried in a luxuriance of vegetation which only this part of India can exhibit. What looks poor, and may be in indifferent taste, drawn on paper and reduced to scale, may give an idea of splendour in decay when

[1] Probably a corruption of Firuz-Shâh.

[2] J. H. Ravenshaw's 'Gaur, its Ruins and Inscriptions' (4to, London, 1878); Montgomery Martin's 'Eastern India,' vol ii. pp. 643 658, and vol. iii. pp 67-80; Major Francklin's 'Journal of a Route from Rajmehal to Gaur in 1810' (MS. in India Office); Cunningham, 'Reports,' vol. xv. pp 39-94, and plates 13-26.

seen as it is, and in this respect there are none of the ancient capitals of India which produce a more striking, and at the same time a more profoundly melancholy, impression than these ruins of the old Afghân capital of Bengal[1]

[1] The clearance of undergrowth by the introduction of cultivation in 1879, and the attention of the Bengal Government to these remains since then have rendered them much more accessible.

CHAPTER VIII.

KULBARGA.

CONTENTS

The Mosque at Kulbarga—Madrasa at Bidar—Tombs.

CHRONOLOGY.

'Alâu-d-Dîn Hasan Gângû, Bahmanî, a servant in Muhammad Tughlaq's court A.D. 1347
Muhammad Shâh I. Ghâzi ,, 1358
Mujâhid Shâh ,, 1375
Mahmûd Shâh I (or Muhammad Shâh II) ,, 1378
Tâju-d-Dîn Firûz Shah married daughter of Devarâya of Vijayanagar ,, 1397
Ahmad Shâh I, capital Bidar ,, 1422
'Alâu-d-Dîn Ahmad Shâh II. A.D. 1435
Kalîm Allah Shâh, last of the Bahmanî dynasty ,, 1525

Qâsim I, Barîd, founder of Barîd Shâhî dynasty of Bidar ,, 1492
'Alî Barîd Shâhî, assumed royalty ,, 1542
Amîr Barîd Shah, last of his race ,, 1609

THE campaigns of 'Alâu-d-Dîn and of Tughlaq Shâh in the beginning of the 14th century extended the fame and fear of the Moslim power over the whole peninsula of India, as far as Cape Comorin and the Straits of Manâr. It was almost impossible, however, that a state in the semi-barbarous condition of the Afghâns of that day could so organise a government as to rule so extensive and varied an empire from one central point, and that as remote as Delhi. Tughlaq Shâh felt this, and proposed to establish the capital at Daulatâbâd. If he had been able to accomplish this, the whole of the south might have been permanently conquered. As it was, the Ballâla dynasty of Halebîd was destroyed in A.D. 1311,[1] and that of Worangal crippled but not finally conquered till some time afterwards, while the rising power of Vijayanagar formed a barrier which shielded the southern states against Muhammadan encroachment for some centuries after that time; and but for the establishment of Muhammadan kingdoms independent of the central

[1] *Ante*, vol. i. p. 437.

power at Delhi, the Dekhan might have been lost to the Moslims, and the Hindûs held their own for a long time, perhaps for ever, to the south of the Vindhya range.

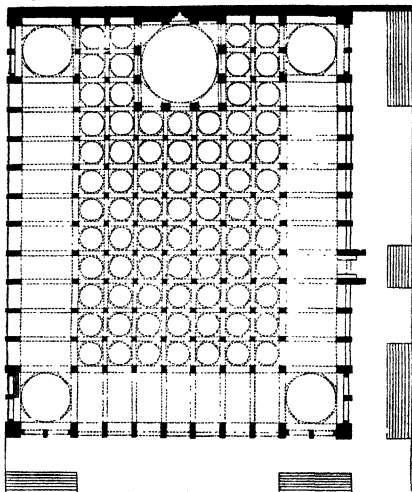
The first of those dynasties that successfully established its independence was that called the Bahmanî, from its founder. Hasan Gângû, being the servant of a Brâhman in Mahmûd Tughlaq's court, and owing his rise to his master, he adopted his name as a title in gratitude. He established himself at Kulbarga or Gulbarga,[1] an ancient Hindû city of the Dekhan in 1347, and with his immediate successors the kingdom extended from Berâr to the Krishnâ river, and from the Worangal kingdom on the east to the Arabian sea on the west, and not only held in check the Hindû sovereigns of Worangal and Vijayanagar, but actually forced them to pay him tribute. This prosperous state of affairs lasted for nearly a century, when Ahmad Shâh I. (A.D. 1422 - 1435), for some reason not explained, in 1428 transferred the seat of power to Bîdar. Under 'Alâu-d-Dîn Ahmad II. fresh conquests extended the kingdom over all the western Dekhan from Mysore to Gujarât. After Muhammad II., they lingered on for about another century, latterly known as the Barîd Shâhis, till they were absorbed in the great Mughal empire in A.D. 1609.[2] Long before that, however, their place in the Dekhan had been taken by the Bijâpûr 'Adil Shâhîs, who established themselves there A.D. 1498.

During the short supremacy of Kulbarga as capital of the Dekhan (A.D. 1347-1428), it was adorned with several important buildings, among which was a mosque, one of the most remarkable of its class in India (Woodcuts Nos. 409, 410). Its dimensions are considerable, though not excessive: it measures 216 ft. east and west, and 170 ft. north and south, and consequently covers 36,720 sq. ft. Its great peculiarity, however, is that, alone of all the great mosques in India, the whole of the area is covered over as in the great mosque at Cordova. Comparing it, for instance, with the mosque at Mandû, which is the one in other respects most like it, it will be observed that the greater part of its area is occupied by a courtyard surrounded by arcades. At Kulbarga there is no court, the whole area of about 126 ft. by 100 ft. is roofed over by sixty-three small domes, and the light is admitted through the side walls, which are pierced with great arches for this purpose on all sides except the west, where is the masjid proper, 45 ft. in depth (Woodcut No. 408). The central area of the mosque is covered by a dome 40 ft. in diameter, raised on a clerestory, and the side areas by

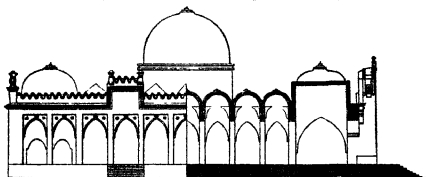
[1] Kulbarga is the form generally and properly used, but in Haidarâbâd, the spelling Gulbarga is favoured.

[2] A very succinct account of the dynasty is given in the 'Numismatic Chronicle,' 3rd Series, vol. i. pp. 91 *et seqq.*

six small domes each, whilst on each end of the side corridors are domes of 25 ft. in width.

Having only one example of the class, it is not easy to form an opinion which of the two systems of building is the better.

408 Mosque at Kulbarga. (From a Plan by the Hon Sir Arthur Gordon, now Lord Stanmore.) Scale 50 ft. to 1 in

There is a repose and a solemnity which is singularly suited to a place of prayer, in a courtyard enclosed by cloisters on all sides, and only pierced by two or three doors; but, on the other hand, the heat and glare arising from reflection of the sun's rays in these open courts is sometimes most painful in such a climate

as India, and nowhere, so far as I know, was it ever even attempted to modify this by awnings. On the Kulbarga plan, on the contrary, the solid roof covering the whole space afforded

409. Half elevation half section of the Mosque at Kulbarga. Scale 50 ft. to 1 in.

410. View of the Mosque at Kulbarga. (From a Photograph.)

protection from the sun's rays to all worshippers, and every aisle being open at one or both ends, prevented anything like gloom,

and admitted of far freer ventilation than was attainable in the enclosed courts, while the requisite privacy could easily have been obtained by a low enclosing wall at some distance from the mosque itself. On the whole, my impression is that the Kulbarga plan is the preferable one of the two, both for convenience and for architectural effect, so much so indeed, that it is very difficult to understand why, when once tried, it was never afterwards repeated Probably the cause of its being abandoned was the difficulty of draining so extensive a flat roof during the rains. Any settlement or any crack must have been fatal; yet this mosque stands in seemingly good repair, after four centuries of comparative neglect. Whichever way the question is decided, it must be admitted that this is one of the finest of the old mosques of India, at least among those which are built wholly of original materials—and in the arcuate style of Muhammadan art. Those at Delhi and Ajmîr are more interesting of course, but it is from adventitious circumstances. This owes its greatness only to its own original merits of design.[1]

Besides the mosque, there is in Kulbarga a bâzâr, 570 ft. long by 60 ft. wide, over all, adorned by a range of sixty-one arches on either hand, supported by pillars of a quasi-Hindû character, and with a block of buildings of a very ornamental character at either end. I am not aware of anything of its class more striking in any part of India. The arcades that most resemble this are those that line the street called the Street of the Pilgrims, at Vijayanagar, which may be contemporary with this bâzâr.

There are other buildings, especially one gigantic gateway, in the city of Kulbarga, in front of the shrine or Dargâh of Banda Nawâz, built about 1640, and in the east of the town are some very grand old tombs—of seven of the Bahmanî kings—massive square domed structures, with sloping walls, and with some handsome stone tracery on the outer surfaces, but otherwise of little architectural merit, inside they are elaborately finished, but have been, and are still, used as Government offices and residences.

After the seat of government was removed to Bîdar, a little over sixty miles to the north-east of Kulbarga, by Ahmad

[1] For the plan and section of this mosque I am indebted to my friend the Hon. Sir Arthur Gordon (now Lord Stanmore). He made the plans himself, and most liberally placed them at my disposal.

The mosque is now in a dilapidated condition In an attempt to repair it at one time, an old powder magazine close by was exploded and the work was stopped. But it has since been taken up afresh.

Shâh I., A.D 1422-1435, the new capital was adorned by edifices worthy of the greatness of the dynasty, but which are now greatly ruined. Among these the most magnificent appears to have been the madrasa or college erected by Khwâja Mahmûd Gâwân (or Gilanî), the faithful but unfortunate minister of the tyrant Muhammad II. It was about 205 ft. by 180 ft., with lofty towers at the ends of the east face, and must have been a striking building, three storeys in height, with its towers—if not the whole façade—covered with enamelled tiles. It appears to have been finished two years before his death, in A.D. 1481, and in Ferishta's time was one of the most complete and flourishing establishments of its class in India.[1] Unfortunately, when the place was besieged by Aurangzîb in 1656, a quantity of gunpowder was stored in it and exploded, either accidentally or by design, so as to ruin one wing. Since then the building has been disused, but so far as can be judged from such imperfect information as is available, it must have been one of the most splendid buildings of its day. In the citadel the most entire structure, perhaps, is the mosque, which is 295 ft. in length by 77 ft. deep, with nineteen arched entrances in front, and inside eighty round piers, each 4¼ ft. in diameter, which support the groins of the roof In the middle, enclosing the *mihrâbs* and a pulpit of three steps, is an apartment 38 ft. square, which is carried up as an octagon a storey above the roof of the mosque, and covered by a large dome. Parts of the roof—which was covered by some eighty-four small domes—have fallen in. The ten tombs of Bahmanî kings, about 5 miles north-east from the city, are of the like pattern and of considerable splendour, the largest being that of Ahmad Shâh I., who died in 1435. They are not much ornamented, but are structurally good, and impressive by their massive proportions.

The tombs, too, of the Barîd Shâhî dynasty, which reigned in Bîdar from A.D. 1492-1609, are of considerable splendour, and rival those of Golkonda in extent. The tomb of Amîr Barîd Shâhî, the second of this dynasty (1504-1538), about half a mile to the west of the city, stands on a large solid platform, and is nearly 57 ft. square, with walls 9 ft. 8 in. thick, which rise to a height of 57 ft. from the platform, and are crowned with a sort of honeysuckle border. The dome is about 37 ft. in height and is ornamented inside with belts of coloured tiles, and further decorated with interlaced Arabic sentences.[2]

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[1] Brigg's translation of Ferishta, vol. ii. p. 510.

[2] For further information respecting Bidar, see 'Archæological Survey of Western India,' vol. iii. pp. 42-46, and plates 28-32.

CHAPTER IX.

BIJÂPUR.

CONTENTS.

The Jâmi' Masjid—Tombs of Ibrâhim and Mahmûd—The Audience Hall—Mihtari Mahall — Golkonda Tombs — Tomb of Nawâb Amir Khân, near Tatta.

CHRONOLOGY

Yusuf 'Âdil Shâh	A.D. 1490	'Ali 'Âdil Shâh I .	A.D. 1557
Ismâ'il 'Âdil Shâh .	,, 1510	Ibrâhim 'Âdil Shah II.	. ,, 1580
Mallû 'Âdil Shâh	,, 1534	Muhammad 'Âdil Shâh	,, 1626
Ibrâhim 'Âdil Shâh I	,, 1535	'Ali Âdil Shâh II. .	,, 1656

As mentioned above, the Bahmanî dynasty of Kulbarga maintained the struggle against the Hindû principalities of the south for nearly a century and a half, with very little assistance from either the central power at Delhi or their cognate states in the Dekhan. Before the end of the 15th century, however, they began to feel that decay inherent in all Eastern dynasties, and the Hindûs might have recovered their original possessions, up to the Vindhya at least, but for the appearance of a new and more vigorous competitor in the field in the person of Yûsuf 'Âdil Khân, supposed to have been the son of Sultân Murâd II. of Anatolia. He was thus a Turk of pure blood, and born in Constantinople, though his mother was forced to send him thence while he was still an infant. After a varied career he was purchased for, and found service in the body-guard of Amîr Barîd at Bîdar, and soon raised himself to such pre-eminence that on the defeat of Dastûr Dînâr, in 1501, he was enabled to proclaim his independence and establish himself as the founder of the 'Âdil Shâhî dynasty of Bijâpûr.

For the first fifty or sixty years after their accession, the struggle for existence was too severe to admit of the 'Âdil Shâhîs devoting much attention to architecture. The real building epoch of the city commences with 'Alî, A.D. 1557, and all the important buildings are crowded into the 100

years which elapsed between his accession and the wars with Aurangzîb, which ended in the final destruction of the dynasty.

During that period, however, their capital was adorned with a series of buildings as remarkable as those of any of the Muhammadan capitals of India, hardly excepting even Agra and Delhi, and showing a wonderful originality of design not surpassed by those of such capitals as Jaunpur or Ahmadâbâd, though differing from them in a most marked degree.

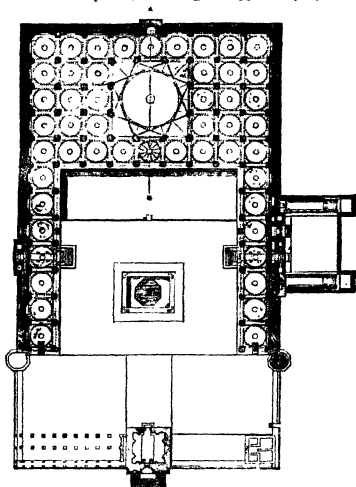
It is not easy now to determine how far this originality arose from the European descent of the 'Âdil Shâhîs and their avowed hatred of everything that belonged to the Hindûs, or whether it arose from any local circumstances, the value of which we can now hardly appreciate. The foreign origin of the 'Âdil Shâhî dynasty and their partiality for the Shîah form of Islâm prevailing in Persia, rather than the Sunnî, together with their ready employment of Persian officers, may probably have influenced their architecture, and led to that largeness and grandeur which characterised the Bijâpûr style.

Earlier Muhammadan invaders, before the 'Âdil Shâhîs —under Karîmu-d-Dîn, about 1316—had built a mosque in the fort at Bijâpûr, constructed out of Hindû remains. How far the pillars used there by them are torn from other buildings, we are not informed. It would appear, however, that it consists partly of the portico of a Hindû temple; but this is not incompatible with the idea that other portions were removed from their original positions and re-adapted to their present purposes. Another mosque, known as Khwâja Jahân's, dating from about the end of the 15th century, resembles a Hindû temple, and was evidently erected also from materials taken from earlier fanes. But as soon as the new dynasty had leisure to think really about the matter, they abandoned entirely all tendency to copy Hindû forms or Hindû details, but set to work to carry out a pointed-arched, or domical style of their own, and did it with singular success.[1]

The Jâmi' Masjid, which is one of the earlier regular buildings of the city, was commenced by 'Alî 'Âdil Shâh (A.D. 1557-1579), and though continued by his successors on the same plan, was never completely finished, the fourth side

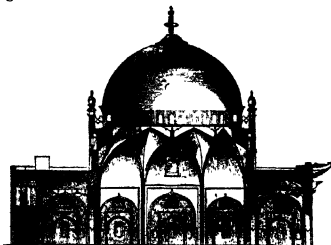
[1] Bijâpûr has been singularly fortunate, not only in the extent, but in the mode in which it has been illustrated. A set of drawings—plans, elevations, and details—were made by Mr A. Cumming, C.E., under the superintendence of Capt. Hart, Bombay Engineers, which, for beauty of drawing and accuracy of detail, are unsurpassed. These were reduced and published by me at the expense of the Government in 1859, in a folio volume with seventy-four plates, and afterwards in 1866 at the expense of the Committee for the Publication of the Antiquities of Western India, illustrated further by photographic views taken on the spot by Col. Biggs, R.A.

of the courtyard with its great gateway not having been even commenced when the dynasty was overthrown. Even as it is, it is one of the finest mosques in India.

As will be seen from the plan (Woodcut No 411), it would have been, if completed, a rectangle of 331 ft. by 257 ft. The

411 Plan of the Jami' Masjid, Bijapûr. Scale 100 ft. to 1 in.

mosque itself is perfect, and measures 257 ft. by 145 ft., and consequently covers about 37,000 sq. ft. It consequently is in itself just about equal to the mosque at Kulbarga; but this is irrespective of the wings, which extend 186 ft. beyond, so that, if completed, it would have covered about 85,000 sq. ft.

—more than the usual size of a mediæval cathedral. It is more remarkable, however, for the beauty of its details than either the arrangement or extent of its plan. Each of the squares into which it is divided is roofed by a dome of very beautiful form, but so flat (Woodcut No. 412) as to be concealed externally in the thickness of the roof. Twelve of these squares are occupied in the centre by the great dome, 57 ft. in diameter in the circular part, but standing on a square measuring 70 ft. each way. The dimensions of this dome were immensely exceeded afterwards by that which covers the tomb of Muhammad constructed on the same plan and 124 ft. in diameter; but the smaller dimensions here employed enabled the architect to use taller and more graceful outlines, and if he had had the courage to pierce the niches at the base of his dome, and make them into windows, he would probably have had the credit of designing the most graceful building of its class in existence.

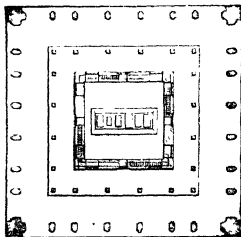
412. Plan and section of smaller domes of Jâmi' Masjid. Scale 50 ft. to 1 in.

413. Section on the line A B through the Great Dome of the Jâmi' Masjid (From a Drawing by Mr Cumming.) Scale 50 ft. to 1 in.

At the east corners of the court two minârs were to have been erected, but only that on the north was properly begun; and, at a later date, the court was extended 95 ft. eastwards, and a large gateway constructed in the centre of the front, together with part of an arcade on the south of it.

If the plan of this mosque is compared with that of Kulbarga

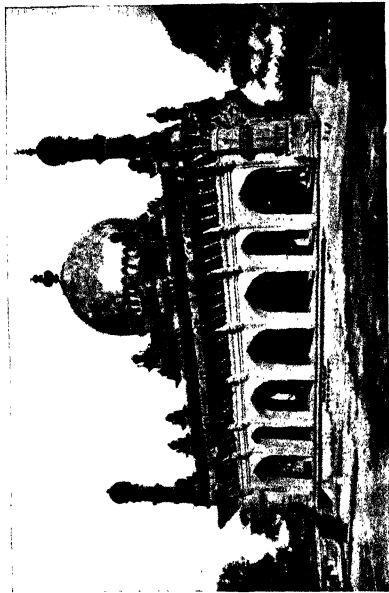
(Woodcut No. 408), it will be seen what immense strides the Indian architects had made in constructive skill and elegance of detail during the century and a half that elapsed between the erection of these two buildings. If they were drawn to the same scale this would be more apparent than it is at first sight; but on half the present scale the details of the Kulbarga mosque could hardly be expressed, while the largeness of the parts, and regularity of arrangement can, in the scale adopted, be made perfectly clear in the Bijâpûr example. The latter is, undoubtedly, the more perfect of the two, but there is a picturesqueness about the earlier building, and a poetry about its arrangements, that go far to make up for the want of the skill and the elegance exhibited in its more modern rival.

The tomb which 'Alî 'Âdil Shâh II (1656-1672) commenced for himself was placed on a high square basement, measuring 215 ft. each way, and had it been completed as designed would have rivalled any tomb in India. The central apartment is 79 ft. square, and is surrounded by a double arcade, the arches of which resemble the Gothic form being struck from two centres, and the curves reaching the crown.

It is one of the disadvantages of the Turanian system of each king building his own tomb, that if he dies early his work remains unfinished. This defect is more than compensated in practice by the fact that unless a man builds his own sepulchre, the chances are very much against anything worthy of admiratio being dedicated to his memory by his surviving relatives.

414. Tomb or Rauza of Ibrâhîm. (From a Plan by Mr Cumming.) Scale 50 ft. to 1 in.

His grandfather, Ibrâhîm II. (1579-1626), had commenced his mausoleum on so small a plan—116 ft. square—that, as he enjoyed a long and prosperous reign, it was only by ornament that he could render it worthy of himself, his favourite wife, and other members of his family.[1] This, however, he accomplished

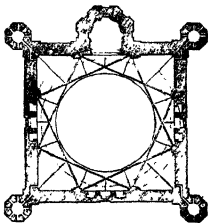
[1] Zohra Sultâna, his favourite daughter, and his mother occupy the graves on each side of Ibrâhîm's; his wife Tâj Sultâna's is next her mother-in-law's, of whom an inscription states that the Rauza is a memorial; and the graves of two sons complete the series.

PLATE XXX.

Rauza of Ibrahim Adil Shah II, at Bijapur

by covering every part with the most exquisite and elaborate carvings. The ornamental inscriptions are so numerous that it is said the whole Qorân is engraved on its walls. The cornices are supported by the most elaborate bracketing, the windows filled with tracery, and every part so richly ornamented that had his artists not been Indians it might have become vulgar. Plate XXX. shows the eastern façade of this fine mausoleum.

The principal apartment in the tomb is a square of 39 ft. 10 in. each way, covered by a stone roof, perfectly flat in the centre, formed of stone slabs set edge to edge, and supported only by a cove projecting 7 ft. 7 in. from the walls on every side How the roof is supported is a mystery which can only be understood by those who are familiar with the use the Indians make of masses of concrete, and with exceedingly good mortar, which seem capable of infinite applications. Above this apartment is another in the dome as ornamental as the one below it, though its only object is to obtain externally the height required for architectural effect, and access to its interior can only be obtained by a dark narrow stair in the thickness of the wall.

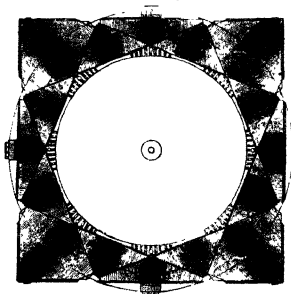
Beside the tomb there is an equally fine mosque to correspond; and the royal garden, in which these are situated, was adorned, as usual, internally with fountains and kiosks, and externally with colonnades and caravansarais for strangers and pilgrims, the whole making up a group as rich and as picturesque as any in India, and far excelling anything of the sort on this side of the Hellespont.

The tomb of his successor, Muhammad (1636 - 1660) was in design as complete a contrast to that just described as can well be conceived, and is as remarkable for simple grandeur and constructive boldness as that of Ibrâhîm was for excessive richness and contempt of constructive proprieties. It is constructed on the same principle as that employed in the design of the dome of the great mosque (Woodcut No. 413), but on so much larger a scale as to convert into a wonder of constructive skill, what, in that instance, was only an elegant architectural design.

415. Plan of Tomb of Muhammad at Bijâpûr. Scale 100 ft to 1 in.

As will be seen from the plan, it is internally a square

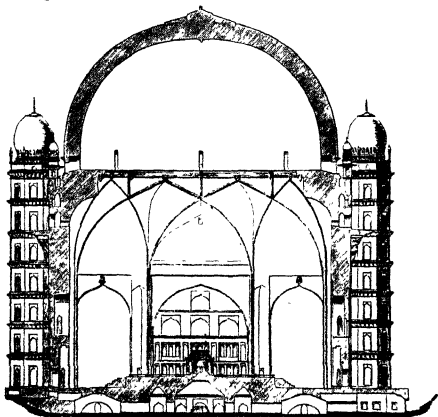
apartment, 135 ft. 5 in. each way; its area consequently is 18,337 sq. ft., while that of the Pantheon at Rome is, within the walls, only 15,833 sq. ft.; and even taking into account all the recesses in the walls of both buildings, this is still the larger of the two.

At the height of 57 ft. from the floor-line the hall begins to contract, by a series of pendentives as ingenious as they are beautiful, to a circular opening 97 ft in diameter. On the platform of these pendentives at a height of 109 ft. 6 in., the dome is erected, 124 ft. 5 in in diameter, thus leaving a gallery more than 12 ft wide all round the interior. Internally, the dome is 178 ft. above the floor, and externally 198 ft from the outside platform, its thickness at the springing is about 10 ft., and at the crown 9 ft.

The most ingenious and novel part of the construction of

416. Pendentives of the Tomb of Muhammad, looking upwards. (From a Drawing by Mr Cumming.) Scale 50 ft to 1 in.

this dome is the mode in which its lateral or outward thrust is counteracted This was accomplished by forming the pendentives so that they not only cut off the angles, but that, as shown in the plan, their arches intersect one another, and form a very considerable mass of masonry perfectly stable in itself; and, by its weight acting inwards, counteracting any thrust that can possibly be brought to bear upon it by the pressure of the dome. If the whole edifice thus

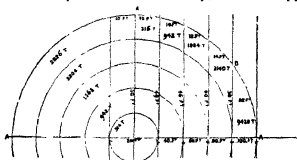
balanced has any tendency to move, it is to fall inwards, which from its circular form is impossible, while the action of the weight of the pendentives being in the opposite direction to that of the dome, it acts like a tie, and keeps the whole in equilibrium, without interfering at all with the outline of the dome.

In the Pantheon and most European domes a great mass of masonry is thrown on the haunches, which entirely hides the external form, and is a singularly clumsy expedient in every respect compared with the elegant mode of hanging the weight inside.

417. Section of Tomb of Muhammad at Bijâpùr. Scale 50 ft to 1 in.

Notwithstanding that this expedient gives the dome a perfectly stable basis to stand upon, which no thrust can move, still, looking at the section (Woodcut No. 417), its form is such that it appears almost paradoxical that such a building

should stand. If the section represented an arch or a vault, it is such as would not stand one hour; but the dome is itself so perfect as a constructive expedient, that it is almost as difficult to build a dome that will fall as it is to build a vault that will stand. As the dome is also, artistically, the most beautiful form of roof yet invented, it may be well, before passing from the most extraordinary and complex example yet attempted anywhere, to pause and examine a little more closely the theory of its construction.

Let us suppose the diagram to represent the plan of a perfectly flat dome 100 ft. in diameter, and each rim consequently 10 ft. wide.

Further assuming for convenience that the whole dome weighs 7,850 tons, the outer rim will weigh 2,826, or almost exactly as much as the three inner rims put together; the next will weigh 2,204, the next 1,568, the next 942, and the inner only 314; so that a considerable extra thickness might be heaped on it, or on the two inner ones, without their preponderance at all affecting the stability of the dome, but this is the most unfavourable view to take of the case. To understand the problem more clearly, let us suppose the

418. Diagram illustrative of Domical Construction.

semicircle A A A (Woodcut No. 418) to represent the section of a hemispherical dome. The first segment of this, though only 10 ft. in width, will be 30 ft. in height, and will weigh 9,420 tons; the next, 10 ft high and 10 ft. wide, will weigh 3,140; the third, 10 ft. by 6 ft, will weigh only 1,884; the fourth will weigh 942; and the central portion, as before, 316.

Now it is evident that the first portion, A B, being the most perpendicular, is the one least liable to disturbance or thrust, and, being also two-thirds of the whole weight of the dome, if steady and firmly constructed, it is a more than sufficient abutment for the remaining third, which is the whole of the rest of the dome.

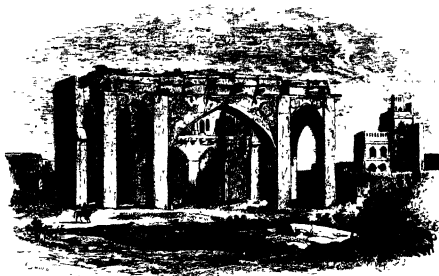
It is evident from an inspection of the figure, or from any section of the dome, how easy it must be to construct the first segment from the springing; and if this is very solidly built and placed on an immoveable basis, the architect may play with the rest; and he must be clumsy indeed if he cannot make it perfectly stable. In the East, they did play with their domes, and made them of all sorts of fantastic forms, seeking to please the eye more than to consult the engineering necessities of the case, and yet it is the rarest possible contingency to find a dome that has fallen through faults in the construction.

In Europe architects have been timid and unskilled in dome-building; but with our present engineering knowledge it would be easy to construct far larger and more daring domes than even this of Muhammad's tomb, without the smallest fear of accident.

The external ordonnance of this building is as beautiful as that of the interior. At each angle stands an octagonal tower eight storeys high, simple and bold in its proportions, and crowned by a dome of great elegance. The lower part of the building is plain and solid, pierced only with such openings as are requisite to admit light and air; at the height of 83 ft. a cornice projects to the extent of 12 ft. from the wall, or nearly twice as much as the boldest European architect ever attempted. Above this an open gallery gives lightness and finish to the whole, each face being further relieved by two small minarets.

The same daring system of construction was carried out by the architects of Bijâpûr in their civil buildings. The great Audience Hall or Gagan Mahall (A.D 1561), for instance (Woodcut No. 419), opens in front with a central arch 60 ft. 9 in. wide, which, had it been sufficiently abutted, might have been a grand architectural feature; as it is, it is too like an engineering work to be satisfactory. Its cornice was in wood, and some of its supports are still in their places. Indeed, it is one of the peculiarities of the architecture of this city that, like the English architects in their roofs, those of Bijâpûr clung to wood as a constructive expedient long after its use had been abandoned in other parts of India. The Âsâr-i-Mubârak or Âsâr Mahall, is entirely open on one side, the roof being supported only by two wooden pillars with immense bracket-capitals; and the internal ornaments are in the same material. The result of this practice was the same at Bijâpûr as in England—far greater depth of framing and greater richness in architectural ornamentation, and an intolerance of constructive awkwardness which led to the happiest results in both countries.

Among the edifices in the city is the Sât-Manzila, one of

those seven-storeyed palaces which come across us so strangely in all out-of-the-way corners of the world. Add to this that the Âsâr-i Mubârak has been converted by the Muhammadans into a relic-shrine to contain some hairs of the Prophet's beard,

419 Audience Hall, Bijapur (From a Photograph.)

and we have a picture of the strange difficulty of weaning a Tartar from the innate prejudices of his race.

Besides these two there were five other palaces within the walls, some of them of great splendour, and numberless residences of the nobles and attendants of the court. But about twenty years ago the Bombay Government adapted a number of these old buildings to modern requirements: the Bukhâra Masjid has been used as a post office, and the mosque belonging to Muhammad's great tomb was turned into a travellers' rest-house, but both have again been restored; the 'Adâlat Mahall was converted into the collector's residence, and the Sûraj Mahall into outhouses, the Chini Mahall into public offices; the Ânand Mahall into a residence for the Assistant Collector; Yâqut Dabalî's Mahall into a traveller's banglâ; Kawâss Khân's tomb and mosque into house and office for the Executive Engineer, the Chhota Chînî Mahall into a house for the Police Superintendent; and the 'Arsh Mahall into the Civil Surgeon's residence.

One of the most remarkable edifices is a little gateway, known as the Mihtari Mahall. It is in a mixed Hindû and

Muhammadan style, every part and every detail covered with ornament, but always equally appropriate and elegant. It is about 24 ft. square in plan and three storeys high, surmounted in front by two slender turrets. On the first floor are remarkably fine balcony windows on each of the four sides. The floors of the first and second storeys are constructed in the same way as that in the Ibrâhîm Rauza. It formed the entrance to a mosque, and of its class it is perhaps the best example in the country, though this class may not be the highest.

The gigantic walls of the city itself, 6¼ miles in circumference, are a work of no mean magnitude, and, combined with the tombs of those who built them, and with the ruins of the suburbs of this once great city, they make up a scene of grandeur in desolation, equal to anything else now to be found even in India.[1]

If the materials were available for the purpose, it would be extremely interesting, from a historical point of view, to trace the various styles that grew out of each other as the later dynasties of the Dekhan succeeded one another and strove to surpass their predecessors in architectural magnificence in their successive capitals. With the exception, however, of Bijâpûr, none of the Dekhani cities produced edifices that, taken by themselves irrespective of their surroundings and historical importance, seem to be, so far as we yet know, of great value in an artistic sense.

Burhânpur, which was the capital of the Fârûqî dynasty of Kândesh, from A.D. 1370 to 1596, does possess some buildings remarkable for their extent and picturesque in their decay, but of very little artistic value, and many of them—especially the later ones—in very questionable taste. Ahmadnagar, the capital of the Nizâm Shâhî dynasty, A.D. 1490 to 1607, is singularly deficient in architectural grandeur, considering how long it was the capital of an important dynasty.

Golkonda, the chosen seat of the Qutb Shâhî dynasty, A.D. 1512 to 1687, lies 6 miles north-west from Haidarâbâd. The first of the dynasty was Qulî Qutbu-l-Mulk, a Tûrkmân or Persian in the service of Mahmûd Shâh II. Bahmanî, who rose to be governor of the Telingâna districts, and who assumed independence in 1512. Ibrâhîm, the third king, Ferishta tells

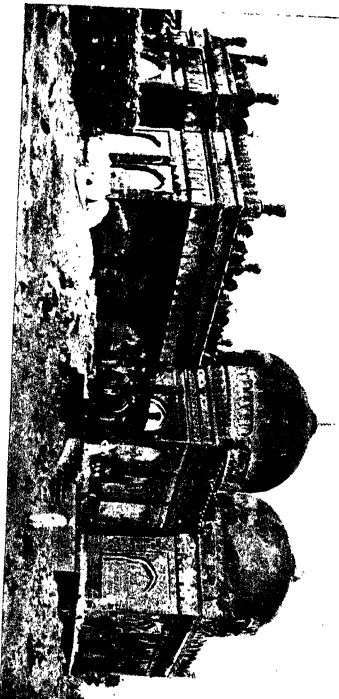
[1] Besides the two larger works mentioned above, p. 269, note, Mr Fergusson contributed to the 'Transactions of the Royal Institute of British Architects,' 1st ser. vol. v. (1854-55), two papers: (1) 'Architectural Splendour of the City of Beejapore,' Nov. 1854; and (2) 'The Great Dome of Sultan Muhammed,' Dec. 1854. Mr Cousens made a survey of the Bijâpûr buildings several years ago, but the results have not yet been published. His 'Guide to Bijapur' (1907) is a useful handbook.

us, was a great builder, the country being then in a very flourishing condition; and his son, Muhammad Qulî, founded Bâgnagar now Haidarâbâd, the Nizâm's capital. The tombs of the kings of this dynasty, and of their nobles and families here, form as extensive and as picturesque a group as is to be found anywhere; they are just outside the walls, to the north-west of the city, and are not unworthy of a place in history if the materials were available for illustrating them properly. They stand on a slightly raised site, each in the centre of a large quadrangular terrace, and had each a small mosque or *musallâ* attached. The tomb of Muhammad Qulî Qutb, erected about 1625, one of the largest and finest, is an imposing structure, with a fine frieze over the main storey. It was once ornamented with coloured tiles and excited the admiration of Thevenot who visited and described it in 1667. Among others of pleasing proportions is that of Abdulla Qutb Shâh—the sixth king (1625-1672)—with rich parapets and cornices round the principal and upper storeys. Near by is the tomb of his mother, Haiyat Bakhsh Begam, who died in 1617: it is about 65 ft. square, and structurally is of the style of her son's. Several of these tombs were repaired by the late Sir Sâlâr Jang. There are also on the outskirts of the city other mausolea of the nobles of the court, in various architectural styles; of these Plate XXXI. illustrates two examples. But until the group has been drawn and intelligently described in some detail we can hardly estimate their merits, which we know generally to be considerable.

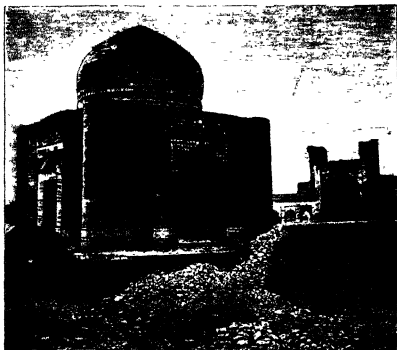
SINDH.

Among the minor styles of Muhammadan art in India there is one that would be singularly interesting in a historical sense if a sufficient number of examples existed to elucidate it, and they were of sufficient antiquity to connect the style with those of the West. From its situation, almost outside India, the province of Sindh must always have had a certain affinity with Persia and the countries lying to the westward of the Indus, and if we knew its architectural history we might probably be able to trace to their source many of the forms we cannot now explain, and join the styles of the East with those of the West in a manner we cannot at present pretend to accomplish

The buildings in this province were nearly always in brick, stone being scarce; and though they are not exposed to the destructive agencies of vegetation like those of Bengal, the mortar is bad, and salt in the soil rises and disintegrates the bricks, which are easily picked out and utilised by the natives to build their huts or villages.

PLATE XXXI

Tombs beyond the Courtyard at Golkonda

[*To face page* 280, Vol II

Most of what we at present know belong to a series of tombs in the neighbourhood of Tatta, which were erected under the Mughal dynasty by the governors or great men of the province, during their sway. At least the oldest now known is that of Jâm Nizâmu-d-Dîn built in 1508, almost coeval with which is the Dabgir mosque of 1509, and later is the tomb of Amîr Khalîl Khân, erected in or about A.D. 1572, the year in which Akbar deposed the Jâmi dynasty and annexed Sindh to his empire. The tombs or mosques of the earlier dynasties have not yet been surveyed and described. The later series extends from A.D 1572-1640, and all show a strongly-marked affinity to the Persian style of the same or an earlier age. One example must for the present suffice to explain their general appearance, for they are all very much alike. It is the tomb of Sharfa Khân,

420. Tomb of Nawâb Sharfa Khân, near Tatta, A.D. 1640. (From a Photograph.)

the Nawâb or minister to Amîr Khân, who was governor of the province in the reign of Shâh Jahân, from A.D. 1627 to 1632, and afterwards A.D. 1641 to 1650. The tomb was built apparently ir A.D. 1638 (Woodcut No. 420). It is 38 ft. 4 in. square, is o glazed coloured brick, the foundation and plinth are of stone

but it was, like all the others of its class, ornamented with coloured tiles, like those of Persia generally, of great beauty of pattern and exquisite harmony of colouring[1] It is not a very monumental way of adorning a building, but, as carried out on the dome of the Rock at Jerusalem, in the middle of the 16th or in the mosque at Tabrîz in the beginning of the 13th century,[2] and generally in Persian buildings, it is capable of producing the most pleasing effects

Like the other tombs in the province, it is so similar to Persian buildings of the same age, and so unlike any other found at the same age in India Proper, that we can have little doubt as to the nationality of those who erected them.

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[1] Abundant examples of coloured tiles from the Jâmi' Masjid at Tatta, erected about 1646, and from tombs and mosques in the province have been published in a 'Portfolio of Illustrations of Sind Tiles,' by Mr. H Cousens (fifty plates, atlas folio), 1906. But, except a section of the Jâmi' Masjid at Tatta, there are no drawings—plans and sections—to explain the positions of the specimens in the various mosques and tombs from which they are copied

[2] 'History of Ancient and Medieval Architecture,' vol ii p. 573

CHAPTER X.

MUGHAL ARCHITECTURE.

CONTENTS

CHRONOLOGY

Bâbar	A.D. 1526	Akbar	A.D. 1556
Humâyûn	1530	Jahângîr	1605
Shêr Shâh Afghân	1539	Shâh Jahân	1628
Salîm Islâm Shâh	1545	Aurangzîb or 'Âlamgîr	1658
—— dies	1552	Bahâdur Shâh	1707

TILL within half a century ago, a description of the style introduced by the Mughal emperors would have been considered a complete history of Muhammadan architecture in India. It is the style which was described by Roe and Bernier, and all subsequent travellers. It was rendered familiar to the public in Europe by the drawings of Daniell, in the beginning of last century, and, since Agra and Delhi became practically British cities, their buildings have been described, drawn, and photographed till they have become almost as well known as any found in Europe. It will take a very long time before even photography will render the mosques or tombs of such cities as Ahmadâbâd or Bijâpûr as familiar or as easily understood. Yet it is, perhaps, true to assert that the buildings of other dynasties, commencing with the mosques at the Qutb and at Ajmîr, and continuing till the last Dakhani dynasty was destroyed by Aurangzîb, make up a whole as extensive and more interesting, in a historical point of view, than even all that was done by the Mughals. On the other hand, however, there is a unity in the works of that dynasty, and a completeness in their history, which makes the study of their art peculiarly fascinating, and some of their buildings will bear

comparison, in some respects, with any architectural productions in any part of the world. Their buildings, however, are so original, and so unlike any of the masterpieces of art that we are generally acquainted with, that it is almost impossible to institute any comparison between them which shall be satisfactory. How, for instance, can we compare the Parthenon with the Tâj? They are buildings of nearly equal size and magnificence, both in white marble, both admirably adapted for the purposes for which they were built, but what else have they in common? The one is simple in its outline, and depending on pillars for its external adornment, the other has no pillars, and owes its greatest effects to its singularly varied outline and the mode in which its various parts are disposed, many of them wholly detached from the principal mass. The Parthenon belongs, it is true, to a higher class of art, its sculptures raising it into the region of the most intellectual branch of phonetic art, but, on the other hand, the exquisite inlay of precious stones at the Tâj is so æsthetically beautiful as, in a merely architectural estimate, almost to bring it on a level with the Grecian masterpiece.[1]

Though their value, consequently, may be nearly the same, their forms are so essentially different that they hardly look like productions of the same art, and in an art so essentially conventional as architecture always is and must be, it requires long familiarity with any new form, and a knowledge of its origin and use, that can only be acquired by constant study, which makes it very difficult for a stranger to realise the real beauty that often underlies even the strangest forms. When, however, these difficulties are conquered, it will probably be found that there are few among the Eastern styles that deserve more attention, and would better repay any study that might be bestowed upon them, than the architecture of the Mughals.

Some little interruptions are experienced at the beginning of the narrative from the interpolation of the reigns of Sher Shâh and his son Salîm or Islâm in the reign of Humâyûn. He was an Afghân by descent and an Indian by birth, and, had he been

[1] Adopting the numerical scale described in the introduction to the 'True Principles of Beauty in Art,' p 140 ('History of Ancient and Medieval Architecture,' vol i. pp. 5, 6), I estimated the Parthenon as possessing 4 parts of technic value, 4 of æsthetic, and 4 phonetic, or 24 as its Index number, being the highest known. The Tâj I should on the contrary estimate as possessing 4 technic, 5 æsthetic, and 2 phonetic, not that it has any direct phonetic mode of utterance, but from the singular and pathetic distinctness with which every part of it gives utterance to the sorrow and affection it was erected to express. Its index number would consequently be 20, which is certainly as high as it can be brought, and near enough to the Parthenon for comparison at least.

left to follow his own devices, would, no doubt, have built in the style of architecture used at Agra and Delhi before his countrymen were disturbed by the Mughal invasion. We have, it is true, very little to tell us what that style was during the 170 years that elapsed between the death of Tughlaq Shâh and the first invasion of Bâbar, but it seems to have been singularly plain and solid, and very unlike the florid art introduced by the Mughals, and practised by Sher Shâh and his son apparently in rivalry to the new master of Hindustan. So little difference is there, however, between the architecture of Sher Shâh and of Akbar that they must be treated as one style, beginning in great sobriety and elegance, and ending in something nearly approaching to wildness and exuberance of decoration, but still very beautiful—in some respects superior to the chaste but feeble elegance of the later Mughal style that succeeded it.

There is, again, a little difficulty and confusion in our having no examples of the style as practised by Bâbar and Humâyûn. The well-known tomb of the latter king was certainly built by his son Akbar; Bâbar was buried near Kâbul, and no building known to be his has yet been identified in India. Yet that he did build is certain. In his own 'Memoirs' he tells us, "In Agra alone, and of the stone-cutters belonging to that place only, I every day employed on my palaces 680 persons; and in Agra, Sîkrî, Biânâ, Dholpur, Gwâliar, and Koil, there were every day employed on my works 1,491 stone-cutters."[1] In the following pages he describes some of these works, and especially a Baolî of great magnificence he excavated in the fort of Agra.[2] This was in the year 1526, and he lived to carry on these works for five years longer. During the ten years that his son retained the empire, we learn from Ferishta and other sources that he adorned his capital with many splendid edifices: one, a palace containing seven pavilions or audience halls—one dedicated to each of the planets, in which he gave audience on the day of the week dedicated to the planet of the day.[3] There are traditions of a mosque he is said to have built on the banks of the Jamnâ, opposite where the Tâj now stands; and his name is so frequently mentioned in connection with buildings both at Agra and Delhi that there can be little doubt that he was a builder to as great an extent as the troubled character of his reign would admit of. But his buildings have perished, so that practically the history of Mughal architecture commences with the buildings of an Afghân dynasty who occupied the throne of India for sixteen years during the last part of Humâyûn's lifetime.

[1] 'Memoirs,' translated by Erskine, p. 334.

[2] *Loc. cit.* pp. 341-342

[3] Brigg's translation, vol. ii. p. 71.

It is probable that very considerable light will yet be thrown upon the origin of the style which the Mughals introduced into India, from an examination of the buildings erected at Samarkand by Timur a hundred years before Bâbar's time (A.D. 1393-1404). Now that city is in the hands of the Russians, it is accessible to Europeans. Its buildings have been drawn and photographed, but not yet described so as to be available for scientific purposes, but sufficiently so to indicate the direction in which light may be expected. Though a frightful savage in most respects, Timur was possessed of a true Tûrki love for noble architecture; and though he generally massacred the inhabitants of any town that resisted him, he always spared the architects and artists, and sent them to work on the embellishment of his capitals. Samarkand was consequently filled with splendid edifices, but, so far as can be judged from the materials available, more resembling in style those of Persia than anything now known to exist in India. The bulbous dome appears everywhere, and was not known at that time in India, unless it was in the quasi-Persian province of Sindh. Coloured tiles were the favourite mode of decoration, and altogether their style was gorgeous in the extreme as compared with the sobriety of the later Pathân buildings in India

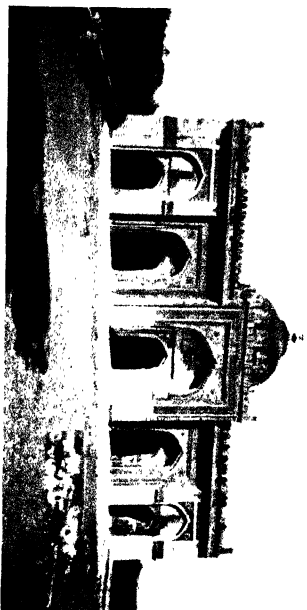
SHER SHÂH, A.D. 1539-1545.

Certainly one of the most remarkable men who ever ruled in northern India, though his reign was limited to only five years' duration; and during that brief space, disturbed by all the troubles incident to a usurpation, Sher Shâh left his impress on every branch of the administration. The revenue system, the police, the army administration, all the great reforms, in fact, which Akbar so successfully carried out, were commenced, and to some extent perfected, by this usurper, as the Mughals call him. In architecture, too, which most concerns us here, he certainly pointed out the path by which his successor reached such eminence

The most perfect of his buildings that I am acquainted with is the mosque in the Purânâ Kilâ or Kilâ Kohnâ at Delhi. The walls of this place were repaired by Humâyûn in A.D. 1533, and, according to the latest authorities, it is said to have been built by Sher Shâh in A.D 1541 (Plate XXXII.).[1] It is a single hall, with five openings in front through pointed arches of what we would call Tudor form, but beautifully varied in design, and

[1] Cunningham, 'Reports, vol i p 222; vol. iv. p. 74, Carr Stephen's 'Archæology of Delhi,' p 190, Fanshawe's 'Delhi,' p. 228, from which the plate is taken.

PLATE XXXII

Mosque of Sher Shah in Purana Kila, Delhi

[To face page 286, Vol. II

arranged in panels carved with the most exquisite designs and ornamented with parti-coloured marbles. It is 168 ft. long by 44 ft. 6 in. wide, and about 44 ft. high. The brackets under the balconies are the precursors of the type so marked in the red sandstone palace in the fort at Agra; and the pendentives inside, below the dome, are effective. One important dome, pierced with twelve small windows, crowns the centre; it has, however, no minarets and no courtyard, but even without these adjuncts it is one of the most satisfactory buildings of its class in India.

In the citadel at Agra there stood when I was there, a fragment of a palace built by Sher Shâh, or his son Salîm, which was as exquisite a piece of decorative art as anything of its class in India. Being one of the first to occupy the ground, this palace was erected on the highest spot within the fort; hence our Government, fancying this a favourable site for the erection of a barrack, pulled it down, and replaced it by a more than usually hideous brick erection of their own. This afterwards became a warehouse, and looms, in whitewashed ugliness, over the marble palaces of the Mughals—a fit standard of comparison of the tastes of the two races.[1]

Judging from the fragment that remains, and the accounts received on the spot, this palace must have gone far to justify the eulogium more than once passed on the works of these Pathâns—that "they built like giants, and finished like goldsmiths:" for the stones seem to have been of enormous size, and the details of most exquisite finish. It has passed away, however, like many another noble building of its class, under the ruthless barbarism of our rule. Mosques we have generally spared, and sometimes tombs, because they were unsuited to our economic purposes, and it would not answer to offend the religious feelings of the natives. But when we deposed the kings, and appropriated their revenues, there was no one to claim their now useless abodes of splendour. It was consequently found cheaper either to pull them down, or use them as residences or arsenals, than to keep them up, so that very few now remain for the admiration of posterity.

The tomb of Sher Shâh has been already described (*ante*, p. 218), as it is essentially Pathân in style. It was erected at his native place in Bihâr, to the south of the Ganges, far from Mughal influence at that time, and in the style of severe simplicity that characterised the works of his race between the

[1] As I cannot find any trace of this building in Keene's description of the fort in his book on Agra, I presume it must have been utilised since my day. Unless it is the building he calls the Nobut Khana of Akbar's palace (26). I have never seen it in any photograph of the place.

times of Tughlaq and those of Bahlol Lodî (A.D. 1451-1489), the last really independent king of his line.

It is not quite clear how much of the tomb was built by himself, or how much by his son Salîm, who certainly finished it. Salîm also built the Salimgarh on an island in the Jamnâ, which Shâh Jahân afterwards connected by a bridge with his palace in New Delhi. Whether, however, he erected any buildings inside is not certain—nothing at least now remains of any importance. Generally he seems to have carried on and completed his father's buildings, and between them they have left a group of architectural remains which, if collected together and illustrated, would form an interesting chapter in the history of Indian-Muhammadan styles.[1]

AKBAR, 1556-1605.

It would require a volume to describe all the buildings erected by this remarkable man during his long reign of forty-nine years, and a hundred plates would hardly suffice to make known all their peculiarities Had Akbar been content to follow in the lines of the style invented by the Pathâns and perfected under Sher Shâh, it might be easy enough to follow the sequence, but nothing in his character is so remarkable as the spirit of tolerance that pervaded all his acts. He seems to have had as sincere a love and admiration for his Hindû subjects as he had for those of his own creed, and whether from policy or inclination, to have cherished their arts as much as he did those that belonged exclusively to his own people. The consequence is a mixture throughout all his works of two styles, often more picturesque than correct, which might, in the course of another half century, have been blended into a completely new style if persevered in. The spirit of tolerance, however, died with him. There is no trace of Hinduism in the works of Jahângîr or Shâh Jahân, and Aurangzîb would have been horrified at the suggestion that arts of the infidels could influence anything he did.

One probably of his earliest works was the mausoleum, which he erected over the remains of his father, Humâyûn, at Delhi. Though it certainly was finished by Akbar, it was commenced by his widow, Hâjî Begam Maryam-makânî, and

[1] It is not quite clear how much Rhotâsgarh owes its magnificence to Sher Shâh, how much to Akbar; both certainly built there, and on the spot it might easily be ascertained how much belongs to each Unfortunately the British "converted the beautiful Diwân Khâna, of which Daniell published a drawing, into a stable for breeding horses." — Hamilton's 'Gazetteer,' *sub voce*.

completed in 1565, at a cost of fifteen lâkhs of rupees; for, as frequently remarked in the previous pages of this work, the great architectural peculiarity of the Tartar or Mongolian races is their tomb-building propensity, in which they are so strongly distinguished from the Aryan, and also from the great Semitic families, with whom they divide the greater part of the habitable globe. Nowhere is this more forcibly illustrated than in India—where the tombs of the Pathâns and Mughals form a complete and unbroken series of architectural monuments from the first years of the Moslim invasion to the present hour.

The tombs of the Pathâns are less splendid than those of the Mughals; but nevertheless the whole series is singularly interesting, the tombs being far more numerous than the mosques Generally speaking, also, they are more artistic in design, and frequently not only larger but more splendidly decorated than the buildings exclusively devoted to prayer.

The princes of the Tartar races, in carrying out their love of tombs, made it the practice to build their own in their lifetime, as all people must who are really desirous of sepulchral magnificence. In doing this they rejected the Egyptian mode of preparing dark and deep chambers in the heart of the rock, or of the massive pyramid. The Tartars, on the other hand, built their sepulchres of such a character as to serve for places of enjoyment for themselves and their friends during their lifetime, and only when they could enjoy them no longer they became the solemn resting-places of their mortal remains.

The usual process for the erection of these structures is for the king or noble who intends to provide himself a tomb to enclose a garden outside the city walls, generally with high crenellated walls, and with one or more splendid gateways; and in the centre of this he erects a square or octagonal building, crowned by a dome, and in the more splendid examples with smaller and dome-roofed apartments on four of the sides or angles, the other four being devoted to entrances. This building is generally situated on a lofty square terrace, from which radiate four broad alleys, generally with marble-paved canals, ornamented with fountains; a mosque is an essential adjunct; the angular spaces are planted with cypresses and other evergreens and fruit-trees, making up one of those formal but beautiful gardens so characteristic of the East. During the lifetime of the founder, the central building is called a Bâra-darî, summer house or festal hall, and is used as a place of recreation and feasting by him and his friends.

At his death its destination is changed—the founder's remains are interred beneath the central dome. Sometimes his favourite

wife lies beside him; but more generally his family and relations are buried beneath the collateral domes. When once used as a place of burial, its vaults never again resound with festive mirth. The care of the building is handed over to priests and faqirs, who gain a scanty subsistence by the sale of the fruits of the garden, or the alms of those who come to visit the last resting-place of their friend or master. Perfect silence takes the place of festivity and mirth. The beauty of the surrounding objects combines with the repose of the place to produce an effect as graceful as it is solemn and appropriate.

Though the tombs, with the remains of their enclosures, are so numerous throughout all India, the Tâj Mahall, at Agra, is almost the only tomb that retains its garden in anything like its pristine beauty, and there is not perhaps in the whole world a scene where nature and art so successfully combine to produce a perfect work of art as within the precincts of this far-famed mausoleum.

The tomb of Humâyûn Shâh, the first of the Mughals who was buried in India, still stands tolerably entire among the ruins of Old Delhi, of which indeed it forms the principal and most striking object (Plate XXXIII.). It stands well on a large square platform, 22 ft. in height, adorned with arches, whose piers are ornamented with an inlay of white marble. The tomb itself is an octagonal apartment, 47 ft. 4 in. across, crowned by a dome of white marble, of very graceful contour externally. Four sides of the octagon are occupied by the entrances; the other four smaller octagonal apartments, 23 ft. wide, are attached; these project from the façades of the central bays on each face, and the amount of white marble on them, gives them prominence. In the corner rooms are the tombs of Hâjî Begam and some nine others of the royal race. These apartments make up a building nearly square in plan, about 155 ft. each way, with the angles slightly cut away.[1] Its plan is in fact that afterwards adopted at the Tâj (Woodcut No. 433), but used here without the depth and poetry of that celebrated building. Its most marked characteristic, however, is its purity—it might almost be called poverty—of design It is so very unlike anything else that Akbar ever built, that it is hardly possible it could have been designed by him. It has not even the picturesque boldness of the earlier Pathân tombs, and in fact looks more like buildings a century at least more modern than it really is. It is, however, as will be seen from the photograph, a noble tomb, and anywhere else must be considered a wonder.

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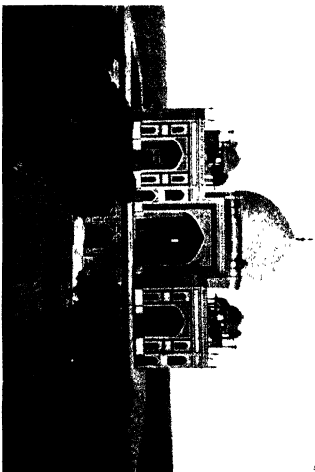
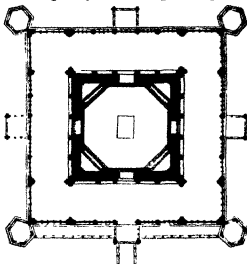
[1] In the upper storey of the building round the drum supporting the dome, are rooms and pavilions once occupied by a college, long since deserted.

PLATE XXXIII

Tomb of the Emperor Humayun, near Delhi.

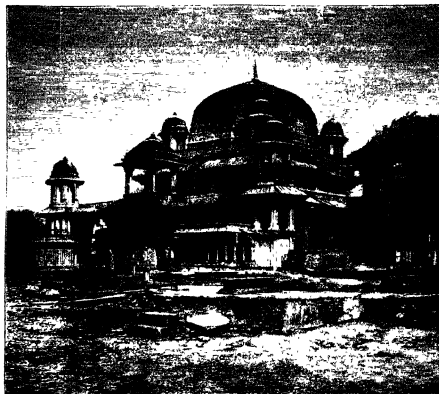
[*To face page* 290, Vol II

To illustrate the architecture of the day, however, it may be preferable to take the contemporary tomb of Muhammad Ghaus[1] at Gwâliar, which was erected during the early part of Akbar's reign, and is a singularly interesting example of the tombs of the period. It is a square, measuring 100 ft. each way, exclusive of the hexagonal towers, which are attached to the angles (Woodcut No. 421). The chamber of the tomb itself is a hall 43 ft. square, with the angles cut off by pointed arches so as to form an octagon, on which the dome rests. Around this square building is a gallery, 20 ft. wide between the piers, enclosed on all sides by a screen of the most exquisite tracery in pierced stone-work with a projecting porch on each face (Woodcut No 422).[2]

421. Plan of Tomb of Muhammad Ghaus, Gwâliar. Scale 50 ft. to 1 in

On comparing this with the tomb of Sher Shâh at Sahsarâm, which in many respects it resembles to a considerable extent, it will be seen that it marks a considerable progress in tomb-building during even the short period that elapsed between the erection of the two. There is an inherent weakness in an octagonal form as compared with the square, that even the Pathâns never quite successfully conquered; and the outward screen of trellis work is far more elegant than the open arcade of the Sahsarâm tomb. Something may be due to the fact that Gwâliar was a city where building of an ornamental character had long been going on, and where consequently a superior school of masons and architects may always have existed, while Sahsarâm was a remote country village, where these advantages were unknown. But be this as it may, the progress is such in so short a time, that we can only ascribe it to the invigorating

[1] Muhammad Ghaus al 'Âlam of Gwâliar, died in 1562.—Blochmann's "Âin-i-Akbari,' vol. i. pp. 457f.

[2] The plan is taken from one by Gen. Cunningham ('Report,' vol. ii. plate 91). He omits, however, these square projections. I have added them from the photographs.

touch of Akbar's genius, which was afterwards to work such wonders.

422. Tomb of Muhammad Ghaus, Gwaliar (From a Photograph.)

One of the most remarkable and characteristic of Akbar's buildings is the old or Red Palace in the Agra fort, so called from being constructed entirely of red sandstone, unfortunately not of very good quality, and consequently much of its ornament has peeled off. Though most probably erected by Akbar, it goes by the name of the Jahângîr Mahall, and lies on the south side of the Anguri Bâgh and the Khâss Mahall or Palace which is probably largely due to Shâh Jahân. The Red Palace is a square building, measuring 249 ft by 260 ft. In the centre is a courtyard, 71 ft. by 72 ft., on either side of which are two halls facing one another. The largest, 62 ft by 37 ft., has a flat ceiling of stone, divided into panels, and supported by struts of purely Hindû design, very similar to those used in the palaces of Mân Singh and Vikrama Shâhi at Gwâliar. Every

feature around this court is indeed of pure Hindû architecture. No arches appear anywhere, but the horizontal style of construction everywhere. The ornamentation, too, which is carved on all the flat surfaces, is of a class used by Akbar, but not found in the buildings of others. Indeed, throughout this palace arches are used so sparingly, and Hindû forms and Hindû construction prevail to such an extent, that it would hardly be out of place at Chitor or Gwâliar, though it still bears that impress of vigour and originality that he and he only knew how to impress on all his works.[1]

It is, however, at Fathpur-Sîkrî, 22½ miles south-west from Agra, that Akbar must be judged of as a builder. During the whole of his reign it was his favourite residence. He apparently was the first to occupy the spot, and apparently the last, at least, to build there, no single building being identified as having been erected by any of his successors.

Akbar seems to have had no settled plan when he commenced building there The original part of the building seems to be the Mahall-î-Khâss, a block of building measuring about 270 ft. by 390 ft. and therefore of larger dimensions than the Red Palace in the fort of Agra. It has two large courtyards, however, and the buildings that surround it are very inferior in richness of design and ornamentation. This, however, is far more than compensated for by the courts and pavilions that he added from time to time. There is the Dîwân-î-Khâss, or private audience-room, a square building with a throne consisting of an enormous flower-like bracket, supported on a richly-carved pillar;[2] a peristylar building, called his office (Daftar-Khâna), very similar to one he erected at Allahâbâd, to be mentioned hereafter; a five-storeyed open pavilion, all the pillars of which are most richly carved; and long colonnades and walls connecting these with one another. The richest, the most beautiful, as well as the most characteristic of all his buildings here are three small pavilions, said to have been erected to please and accommodate his three favourite sultânas: hence called Bîrbal's daughter's Mahall;[3] Maryam-zamânî's House, appropriated to the daughter of Râja Bihârî Mall and mother of Jahângîr, which was known as Sonahlâ Makân or "Golden House" as having been entirely gilt; and the palace of the Rûmî or Turkish Sultâna — Akbar's first wife — Sultâna Ruqayyah Begam, a daughter of Mîrzâ Hindâl, the emperor's uncle: it is

[1] There is a plan of this palace, in General Cunningham's 'Reports,' vol. iv., plate 13.

[2] A cast of this throne is in the South Kensington Museum.

[3] Bîrbal was a favourite wit and court bard, but no mention is found of his having a daughter, and the house is usually spoken of simply as Bîrbal's palace.

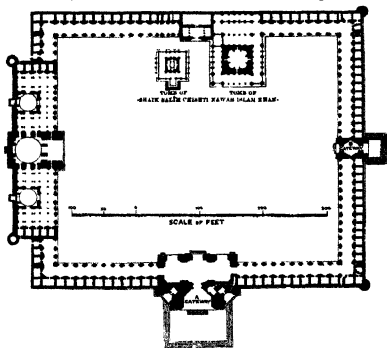
miscalled by the guides Jodh-Bâi's.[1] They are small, but it is impossible to conceive anything so picturesque in outline, or any building carved and ornamented to such an extent, without the smallest approach to being overdone or in bad

423 Carved Pillars in the Sultâna's Kiosk, Fathpur-Sikri (From a Photograph)

taste The two pillars shown in the annexed woodcut, are from a cast from the last-named pavilion, which is now in the South Kensington and other Museums. It is, perhaps, the most elaborate of the three; but the other two are generally in better taste.

The glory, however, of Fathpur-Sikrî is its mosque, which

[1] Jodh-Bâi was the daughter of Udayasimha of Jodhpur and wife of Jahângîr.

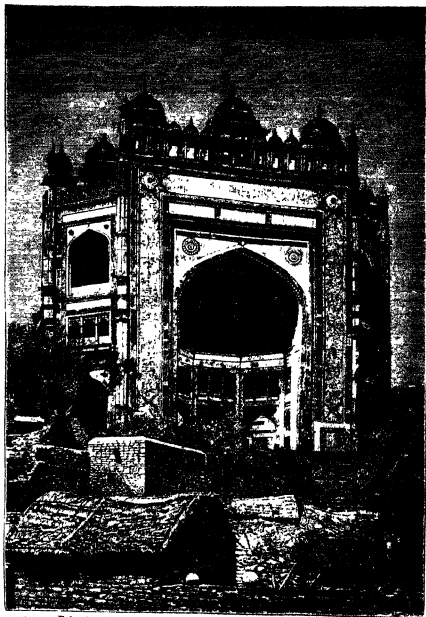
is hardly surpassed by any in India (Woodcut No. 424). It measures about 544 ft. east and west, by 474 ft. north and south over all. The mosque itself, 288 ft. by 66 ft., is crowned by three domes. In its courtyard, which measures 359 ft. 10 in. by 438 ft. 9 in., stand two tombs: that of Salîm Chishtî, wholly in white marble, and the windows with pierced tracery of the most exquisite geometrical patterns—flowing tracery is a subsequent invention. It possesses besides a deep cornice of marble supported by brackets of the most elaborate design, so much

424. Mosque at Fathpur-Sîkrî. (From a Plan by Lieut. Cole, R.E.)

so indeed as to be almost fantastic—the only approach to bad taste in the place; the other tomb, that of Islâm Khân, is soberer and in excellent taste, but quite eclipsed by its surroundings.[1] Even these parts, however, are surpassed in magnificence by the southern or Buland ("Lofty") gateway (A),[2] measuring 130 ft. by 88 ft. in plan, and of proportionate

[1] Shaikh Islâm Khân was a grandson of Shaikh Salîm Chishtî and married a sister of Abûl-Fazl. He was made governor of Bengal in 1608 and died in 1613.

[2] The gateway B on the east side, is called the Badshâhi or Royal gateway; it is much smaller, though it faces the mosque.

dimensions in height (Woodcut No. 425). It was completed

425. Buland or Southern Gateway of Mosque, Fathpur-Sikri. (From a Photograph.)

in 1575. As it stands on a rising ground, when looked at from below, its appearance is noble beyond that of any portal attached to any mosque in India, perhaps in the whole world. This gateway may also be quoted as a perfectly satisfactory solution of a problem which has exercised the ingenuity of architects in all ages, but was more successfully treated by the Saracenic architects than by any others.

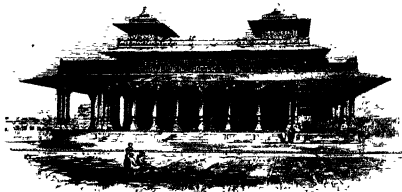
It was always manifest that to give a large building a door at all in proportion to its dimensions was, to say the least of it, very inconvenient. Men are only 6 ft. high, and they do not want portals through which elephants might march. The Greeks never ventured, however, to reduce the proportionate size of their portals, though it may be they only opened the lower half, and they covered them, in almost all instances, with porticos to give them a dignity that even their dimensions failed to impart.

The Gothic architects tried, by splaying their deeply-embowed doorways, and by ornamenting them richly with carving and sculpture, to give them the dignity that was *indispensable for their situation without unnecessarily increasing* the size of the openings. It was left, however, for the Saracenic architects completely to get over the difficulty. They placed their portals—one, or three, or five, of very moderate dimensions—at the back of a semi-dome. This last feature thus became the porch or portico, and its dimensions became those of the portal, wholly irrespective of the size of the opening. No one, for instance, looking at this gateway can mistake that it is a doorway and that only, and no one thinks of the size of the openings which are provided at its base. The semi-dome is the modulus of the design, and its scale that by which the imagination measures its magnificence.

The same system pervades almost all the portals of the age and style, and always with a perfectly satisfactory result—sometimes even more satisfactory than in this instance, though it may be in less proportionate dimensions. The principle seems the best that has yet been hit upon, and, when that is right, failure is as difficult as it is to achieve success when the principle of the design is wrong.

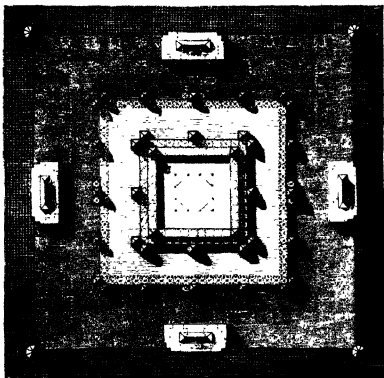
Taking it altogether, this palace at Fathpur-Sîkrî is a romance in stone, such as few—very few—are to be found anywhere; and it is a reflex of the mind of the great man who built it more distinct than can easily be obtained from any other source.[1]

[1] The architecture of Fathpur-Sîkrî has been admirably surveyed and illustrated by the late Mr. Edmund W. Smith,—in four "parts" or volumes, with over 400 plates and photographs, of which about 320 are excellent architectural drawings,—published by the Government of the North-Western Provinces, Allahabad, 1894-97. Conf. G. Le Bon, 'Les Monuments de l'Inde,' pp. 213-218, figs. 341-355.

Allahâbâd was a more favourite residence of this monarch than Agra, perhaps as much so as even Fathpur-Sîkrî; but the English having appropriated the fort, its glories have been nearly obliterated. The most beautiful thing was the pavilion of the Châlîs Sitûn, or forty pillars, so called from its having that number on the principal floor, disposed in two concentric octagonal ranges, one internal of sixteen pillars, the other outside of twenty-four. Above this, supported by the inner colonnade, was an upper range of the same number of pillars crowned by a dome. This building has entirely disappeared, its materials being wanted to repair the fortifications. The great hall, however, still remains, represented in the annexed woodcut (No. 426). It was turned into an arsenal; a brick wall was run

426. Hall in Palace at Allahâbâd (From a Drawing by Daniell.)

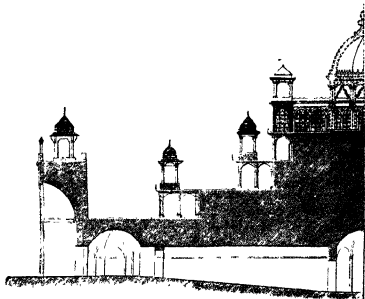
up between its outer colonnades with windows of English architecture, and its curious pavilions and other accompaniments removed; and internally, whatever could not be conveniently cut away was carefully covered up with plaster and whitewash, and hid by stands of arms and deal fittings. Still its plan can be made out: a square hall supported by eight rows of columns, eight in each row, thus making in all sixty-four, surrounded by a deep verandah of double columns, with groups of four at the angles, all surmounted by bracket capitals of the most elegant and richest design, and altogether as fine in style and as rich in ornament as anything in India.

Perhaps, however, the most characteristic of Akbar's buildings is the tomb he commenced to erect for himself at Sikandara, about 5 miles north-west from Agra, which is quite unlike any other tomb built in India either before or since, and of a design borrowed, as I believe, from a Hindû, or more correctly, Buddhist, model. It was completed in 1613, and is said to have

been twenty years in building. It stands in an extensive garden, approached by one noble gateway. In the centre of this garden, on a raised platform, stands the tomb itself, of a pyramidal form. The lower storey measures 320 ft. each way, exclusive of the angle towers. It is 30 ft. in height, and pierced by ten great arches on each face, and with a larger entrance adorned with a mosaic of marble in the centre (Woodcuts Nos. 427, 428).[1]

427. Plan of Akbar's Tomb at Sikandara (From a Plan by the Author.) Scale 100 ft. to 1 in.

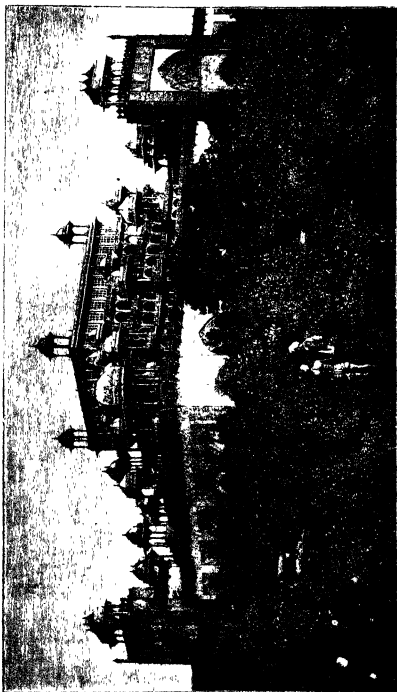
On this terrace stands another far more ornate, measuring 186 ft. on each side, and 14 ft. 9 in. in height. A third and fourth, of similar design, and respectively 15 ft. 2 in. and 14 ft.

[1] No plan or section of this tomb has ever, so far as I know, been published, though it has been in our possession for nearly a century. Those here given are from my own measurements, and, though they may be correct as far as they go, are not so detailed as those of such a monument ought to be, and would have been, had it been in the hands of any other European nation.

6 in. high, stand on this, all these being of red sandstone. Within and above the last is a white marble enclosure 157 ft. each way, or externally just half the length of the lowest terrace, its outer wall entirely composed of marble trellis-work of the most beautiful patterns. Inside it is surrounded by a colonnade or cloister of the same material, in the centre of which, on a raised platform, is the tombstone of the founder, a splendid piece of the most beautiful arabesque tracery. This, however,

428 Diagram section[1] of one half of Akbar's Tomb at Sikandara, explanatory of its arrangements Scale 50 ft. to 1 in.

is not the true burial-place; but the mortal remains of this great king repose under a far plainer tombstone in a vaulted chamber in the basement 35 ft. square, exactly under the simulated tomb that adorns the summit of the mausoleum.

At first sight it might appear that the design of this curious and exceptional tomb was either a caprice of the monarch who built it, or an importation from abroad (Woodcut No. 429). My impression, on the contrary, is, that it is a direct imitation of some such building as the old Buddhist vihâras which may have existed, applied to other purposes in Akbar's time. Turning

[1] The diagram is probably sufficient to explain the text, but must not be taken as pretending to be a correct architectural drawing. There were parts, such as the height of the lower dome and upper angle kiosks, I had no means of measuring, and after all, I was merely making memoranda for my own satisfaction.

420. View of Akbar's Tomb, Sikandara. (From a Photograph.)

back, for instance, to Woodcuts Nos. 89 and 193, representing the great rath at Mâmallapuram, it will be seen that the number and proportion of the storeys is the same. The pavilions that adorn the upper storeys of Akbar's tomb appear distinct reminiscences of the cells that stand on the edge of each platform of the rock-cut example. If the tomb had been crowned by a domical chamber over the tombstone, the likeness would have been so great that no one could mistake it, and my conviction is that such a chamber was part of the original design. No such royal tomb remains exposed to the air in any Indian mausoleum; and the raised platform in the centre of the upper cloister, 38 ft. square, looks so like its foundation that I cannot help believing it was intended for that purpose. As the monument now stands, the pyramid has a truncated and unmeaning aspect. The total height of the building now is a little more than 100 ft. to the top of the angle pavilions; and a central dome 30 or 40 ft. higher, which is the proportion that the base gives, seems just what is wanted to make this tomb as beautiful in outline and in proportion as it is in detail.[1] Had it been so completed, it certainly would have ranked next the Tâj among Indian mausolea.[2]

JAHÂNGÎR, A.D. 1605-1628

When we consider how much was done by his father and his son, it is rather startling to find how little Jahângîr contributed to the architectural magnificence of India. Partly this may be owing to his not having the same passion for building which characterised these two great monarchs; but partly also to his having made Lâhor the capital during his reign, and to his having held his court there in preference to Agra or Delhi, from 1622 till his death in 1628.[3]

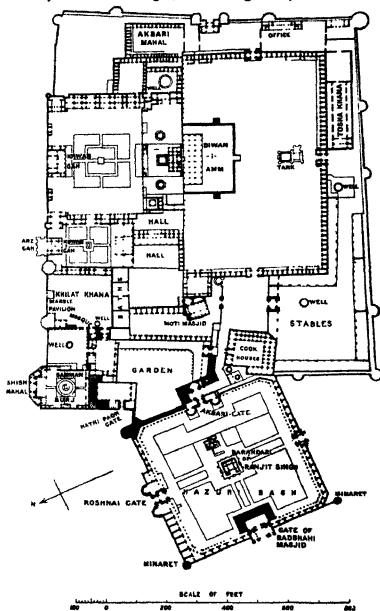
Among the buildings of Jahângîr's reign, the Jahângîri Mahall, already mentioned, in the fort at Agra, is ascribed to

[1] Eleven plates of the beautiful coloured work are published in 'Photographs and Drawings of Historical Buildings' (Griggs, 1896).

[2] After the above was written, and the diagram drawn (Woodcut No. 428), I was not a little pleased to find the following entry in Mr. Finch's journal. He resided in Agra for some years, and visited the tomb for the last time apparently in 1609, and after describing most faithfully all its peculiarities up to the upper floor, as it now stands, adds: "At my last sight thereof there was only overhead a rich tent with a Semaine over the tomb. But it is to be *inarched* over with the most curious white and speckled marble, and to be seeled all within with pure sheet gold richly inwrought."—'Purchas, his Pilgrims,' vol. i. p. 440.

[3] His father, Akbar, had also kept his court here for fourteen years, from 1584 to 1598: and had repaired the fort and built the Akbari Mahall in the east end of it, and a Dîwân-i-'Âmm, now demolished, also the Akbari Gate as the principal entrance. Examples may still be seen at Lâhor of the architecture of his time, though defaced by subsequent alterations.

the first years of his reign; the fine gateway to the Sarâ'e

430. Plan of the Lâhor Fort.

at Nûrmahall, 16 miles south of Jâlandhar, was erected in

1620,[1] the Shâlimâr gardens and summer houses near *Srînagar* were built about 1624; the tomb of Anârkalî in the town of Lâhor; and in the fort he added to Akbar's buildings the eastern Khwâb-gah, marked in the accompanying plan (Woodcut No. 430);[2] and the Motî Masjid of white marble, with three domes, which, though comparatively plain, is architecturally interesting. The Khwâb-gah or sleeping apartments were in a quadrangle about 140 ft. in length, with a lofty pavilion in the middle of the north side—then overlooking the Râvî—and at the corners two chambers with Hindû pillars richly carved. On the other three sides the area was surrounded by a colonnade, on pillars of red sandstone with bracket capitals carved with figures of elephants, peacocks, and conventional animals, similar to what we find in the Red Palace at Agra But these and nearly all the buildings in the fort have met with no respect, but have been entirely altered to suit the conveniences of military life.

To the south of Jahângîr's palace Shâh Jahân erected his Dîwân-i-'Âmm, and on the west an extension of the palace, the smaller Khwâb-gah in which is an elegant pavilion of marble arches and open lattice work which long did duty as a garrison church. At the west end of the north front of the fort is what is known as the Samman Burj,[3] containing the Shish Mahall—the work of Shâh Jahân and Aurangzîb, added to by the Sikhs, and the Naulakhâ pavilion a costly erection inlaid in pietra dura with flowers in precious stones. The square on the west of the fort, called the Hazuri Bâgh, enclosing the Bârahdarî of Ranjit Singh, gives entrance to the Badshâhi Masjid erected by Aurangzîb in 1674, to which reference will be made below.

The great mosque in the city of Lâhor is that of Wazîr Khân built in 1634 by Hakîm 'Âlîmu-d-Dîn, Sûbahdâr of the Panjâb under Shâh Jahân It is in the Persian style, covered with enamelled tiles, and resplendent in colours, but not very graceful in form. Its brick walls are covered with beautiful inlaid work called *kashi*, a kind of mosaic of glazed pottery.[4]

Jahângîr's own tomb at Shâhdara, about 6 miles north of Lâhor, was raised by his queen, the accomplished and imperious Nûr-Jahân, and was worthy of his other buildings, but it has suffered as much as the others. The tomb is in the middle of a large walled garden about 540 yards square, extending to 60 acres, originally with gateways on each side—

[1] Photographed in Cole's 'Buildings in the Panjab," plates 1 and 2.

[2] From a native plan of the Fort in the time of Ranjit Singh.—Cole, *ut sup*

[3] Samman is from *musamman* — octagonal. Tradition reports a lofty octagonal tower here.

[4] This inlaid work is described by J. L. Kipling, with a coloured view of the fine gateway and some details, in 'Journal of Indian Art and Industry,' vol. ii. p. 17, and plates 16-18.

that from the court of the Sarâ'e on the west having a marble arch and being about 50 ft. high. The mausoleum in the centre stands on a low plinth, 256 ft. square, and itself consists of a terraced platform, 209 ft. square and about 20½ ft. high, with octagonal minarets of three storeys above the terraced roof, surmounted by white marble cupolas, and rising 85 ft. from the plinth. It is surrounded by arcades, having a central arch flanked by a doorway and five other arches on each side; the arcades have behind them forty rooms in all, through one of which on each side a passage leads through other two oblong apartments into the tomb chamber, which is thus enclosed in nearly solid walls of masonry 56 ft. thick on all sides. The sarcophagus is of white marble, inlaid with pietra dura work and stands in an octagonal chamber of 26½ ft. diameter and about 21 ft. high. On the roof over this is a raised platform 53 ft. square with a tessellated marble pavement, the marble parapet of which was carried off by Ranjit Singh, but has now been restored[1] The building is of red sandstone inlaid with marble, and the details are all in excellent taste, but the long low façade between the minârs is not architecturally very effective.

On the west of this is the Sarâ'e, and beyond it the octagonal tomb of Âsaf Khân, the brother of Nûr-Jahân, who died in 1641, and across the railway is that of the queen herself—both stripped by Ranjit Singh of their marbles and inlaid work.[2]

At the other end of his dominions also he built a splendid new capital at Dacca, in supersession to Gaur, and adorned it with several buildings of considerable dimensions. These, however, were principally in brick-work, covered with stucco, and with only pillars and brackets in stone. Most of them, consequently, are in a state of ruinous decay; marvellously picturesque, it must be confessed, peering through the luxuriant vegetation that is tearing them to pieces but hardly worthy to be placed in competition with the stone and marble buildings of the more northern capitals.

There is one building—the tomb known as that of I'timâdu-d-daulah — at Agra, however, which belongs to this reign, and though not erected by the monarch himself, cannot be passed over, not only from its own beauty of design, but also because it marks an epoch in the style to which it belongs. It was erected by Nûr-Jahân, in memory of her father, who died in

[1] There is a plan of the tomb and garden, but to a very small scale, among Major Cole's plates in Griggs' 'Photographs and Drawings of Historical Buildings,' plate 68. The elevation and section with coloured details (plates 69-76) are to adequate scales however.

[2] Thornton's 'Lahore' and Syad Muhammad Latif's 'Lahore' give detailed accounts of the place.

1621, and was completed in 1628. It is situated on the left bank of the river, in the midst of a garden surrounded by a wall measuring 540 ft. on each side. In the centre of this, on a raised platform, stands the tomb itself, a square measuring 69 ft. on each side. It is two storeys in height, and at each angle is an octagonal tower, surmounted by an open pavilion. The towers, however, are rather squat in proportion, and the general design of the building very far from being so pleasing as that of many less pretentious tombs in the neighbourhood. Had it, indeed, been built in red sandstone, or even with an inlay of white marble like that of Humâyûn, it would not have attracted much attention. Its real merit consists in being wholly in white marble, and being covered throughout with a mosaic in "pietra dura"—the first, apparently, and certainly one of the most splendid, examples of that class of ornamentation in India.[1]

It seems that in the early part of the 17th century Italian artists, principally, apparently from Florence, were introduced into India, and, it has been said they taught the Indians the art of inlaying marble with precious stones.[2] At Fathpur-Sîkrî, examples occur of "inlay" as well as of "overlay," and in the gateway of the Sikandara tomb inlaid work is quite prevalent, but in the time of Shâh Jahân it became the lead-

[1] For details of the decoration, *see* E. W. Smith's 'Moghul Colour Decoration of Agra,' pp. 18-20, and plates 64-77; 'Photographs and Drawings of Indian Buildings,' plates 12-30, or 'Journal of Indian Art and Industry,' vol. vi. pp. 90-94, and plates 59-66.

[2] Although this was for a time hardly doubted, no very direct evidence was adduced to prove that it was to foreign—Florentine—artists that the Indians owe the art of inlaying in preciousstones generally known as work in "pietra dura." Austin or Augustin de Bordeaux is the only European artist whose name can be identified with any works of the class. He was employed by Shâh Jahân at Delhi, and is supposed to have executed that mosaic of Orpheus or Apollo playing to the beasts, after Raphael's picture, which adorned the throne there, and was long in the Indian Museum at South Kensington, but was taken back and restored to its place by Lord Curzon.

In 'The Nineteenth Century and After,' vol. iii. (1903) pp. 1039ff. Mr. E. B. Havell, of the Calcutta School of Art, has shown reason for ascribing this inlaid work to Arab and Persian origins, pointing to the "elaborate scrolls of conventional Arabian design," and the familiar Persian *motifs*, "such as rose-water vessels, the cypress," etc., which characterise the art.

Up to the erection of the gates to Akbar's tomb at Sikandara in the first ten years of Jahângîr's reign, A.D. 1605-1615, we have infinite mosaics of coloured marble, but few specimens of "inlay." In I'timâdu-d-daulah's tomb, A.D. 1615-1628, we have both systems in great perfection. In the Tâj and palaces at Agra and Delhi, built by Shâh Jahân, A.D. 1628-1668, the mosaic has disappeared, being supplanted by the "inlay." It was just before that time that the system of inlaying called "pietra dura" was invented, and became the rage at Florence and, in fact, all throughout Europe; but though during the reigns of the two last-named monarchs Italian artists were in their service, there is no definite evidence that they held influential posts, whilst artists from Shirâz, Baghdâd, Samarkand and Kanauj are mentioned as of high reputation during the erection of the Tâj Mahall,—most probably designed by 'Ali Mardan Khân, a Persian refugee.

ing characteristic of the style, and both his palaces and his tombs owe their principal distinction to the beauty of the mode in which this new invention was employed.

It has been doubted whether this new art was really a foreign introduction, or whether it had not been invented by the natives of India themselves. The question never, probably, would have arisen had one of the fundamental principles of architecture been better understood. When we, for instance, having no art of our own, copy a Grecian or Roman pillar, or an Italian mediæval arch in detail, we do so literally, without any attempt to adapt it to our uses or climate; but when a people having a style of their own wish to adopt any feature or process belonging to any other style, they do not copy but adapt it to their uses; and it is this distinction between adopting and adapting that makes all the difference. We would have allowed Italians to introduce with their mosaics all the details of their Cinque-cento architecture. The Indians set about reproducing, with the new materials and processes—wherever they came from—the patterns which the architects of Akbar had been in the habit of carving in stone or of inlaying in marble. Every form was adapted to the place where it was to be used. The style remained the same, so did all the details, the materials only were changed, and the patterns only so far as was necessary to adapt them to the smaller and more refined materials that were to be used.[1]

As one of the first, the tomb of I'timâdu-d-daulah was certainly one of the least successful specimens of its class. The patterns do not quite fit the places where they are put, and the spaces are not always those best suited for this style of decoration. But, on the other hand, the beautiful tracery of the pierced marble slabs of its windows, which resemble those of Salîm Chishtî's tomb at Fathpur-Sîkrî, the beauty of its white marble walls, and the rich colour of its decorations, make up so beautiful a whole, that it is only on comparing it with the works of Shâh Jahân that we are justified in finding fault.

SHÂH JAHÂN, A.D. 1628-1658.

It would be difficult to point out in the whole history of architecture any change so sudden as that which took place between the style of Akbar and that of his grandson Shâh Jahân—nor any contrast so great as that between the manly

[1] Something of the same sort occurred when the Turks occupied Constantinople. They adapted the architecture of the Christians to their own purposes, but without copying. *Vide* 'History of Ancient and Medieval Architecture,' 3rd ed. vol. ii. pp. 557 *et seqq.*

vigour and exuberant originality of the first, as compared with the extreme but almost effeminate elegance of the second. Certainly when the same people, following the same religion, built temples and palaces in the same locality, nothing of the sort ever occurred in any country whose history is now known to us.

Nowhere is the contrast between the two styles more strongly marked than in the palace of Agra—from the red stone palace of Akbar or Jahângîr, with its rich sculptures and square Hindû construction, a door opens into the white marble court of the haram of Shâh Jahân (1638-1648), with all its feeble prettiness, but at the same time marked with that peculiar elegance which is found only in the East. The court is not large, 170 ft. by 235 ft, but the whole is finished with the most elaborate care. Three sides of this are occupied by the residences of the ladies, not remarkable for size, nor, in their present state, for architectural beauty, but the fourth, overhanging the river, is occupied by three white marble pavilions of singular elegance.

As in most Moorish palaces, the baths on one side of this court were the most elegant and elaborately decorated apartments in the palace. The baths have been destroyed, but the walls and roofs still show the elegance with which they were adorned.[1]

Behind this, in the centre of the palace, is a great court, 500 ft. by 370 ft., surrounded by arcades, and approached at the opposite ends through a succession of beautiful courts opening into one another by gateways of great magnificence. On one side of this court is the great hall of the palace—the Dîwân-i-'Âmm—208 ft by 76 ft, supported by three ranges of arcades of exquisite beauty. It is open on three sides, and with a niche for the throne at the back.[2] Behind it are two smaller courts, the one containing the Dîwân-i-Khâss, or private hall of audience, the other the haram The hall in the former is one of the most elegant of Shâh Jahân's buildings, being wholly of white marble inlaid with coloured stones, and the design of the whole being in the best style of his reign. It consists of an open colonnade and an inclosed room behind, and measures 65 ft. in length by 34 ft. and 22 ft. high. The carving is beautiful, and the flowers inlaid in the white marble with red carnelian and others are of fine effect.

[1] The great bath was torn up by the Marquis of Hastings with the intention of presenting it to George IV, an intention apparently never carried out, but it is difficult to ascertain the facts now, as the whole of the marble flooring with what remained of the bath was sold by auction by Lord William Bentinck, and fetched probably 1 per cent. of its original cost; but it helped to eke out the revenues of India in a manner most congenial to the spirit of its governors.

[2] Both care and money are now expended liberally for the protection and maintenance of such old buildings that remain in the province.

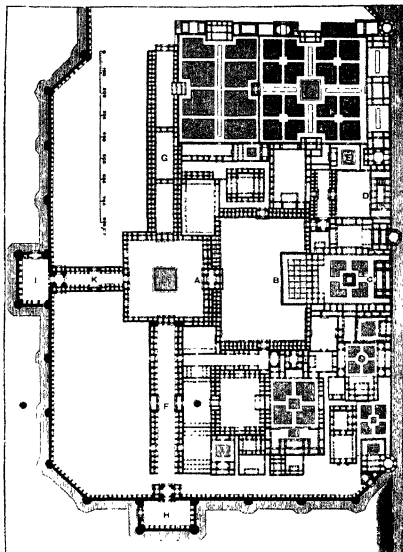
One of the most picturesque features about this palace is a *marble pavilion, in two storeys, that surmounts one of the* circular bastions on the river face, between the haram and the Dîwân-i-Khâss. It looks of an earlier style than that of Shâh Jahân, and if Jahângîr built anything here it is this. On a smaller scale, it occupies the same place here that the Chalîs Sitûn did in the palace at Allahâbâd; and exemplifies, even more than in their larger buildings, the extreme elegance and refinement of those who designed these palaces.[1]

PALACE AT DELHI.

Though the palace at Agra is perhaps more picturesque, and historically certainly more interesting, than that of Delhi, the latter had the immense advantage of being built at once, on one uniform plan, and by the most magnificent, as a builder, of all the sovereigns of India It had, however, one little disadvantage, in being somewhat later than Agra. All Shâh Jahân's buildings there seem to have been finished before he commenced the erection of the new city of Shâh Jahânâbâd with its palace, and what he built at Agra is soberer, and in somewhat better taste than at Delhi. Notwithstanding these defects, the palace at Delhi is, or rather was, the most magnificent palace in the East —perhaps in the world—and the only one, at least in India, which enables us to understand what the arrangements of a complete palace were when deliberately undertaken and carried out on one uniform plan (Woodcut No. 431).

The palace at Delhi, which is situated like that at Agra close to the edge of the Jamnâ, is a nearly regular parallelogram, with the angles slightly canted off, and measures 1600 ft east and west, by 3200 ft north and south, exclusive of the gateways. It is surrounded on all sides by a very noble wall of red sandstone, relieved at intervals by towers surmounted by kiosks. The principal entrance or Lâhor Gate (I) on the west faces the Chândni Chauk, a noble wide street, nearly a mile long, planted with two rows of trees, and with a stream of water running down its centre. Entering within its deeply-recessed portal, you find yourself beneath the vaulted hall (K), the sides of which are in two storeys, and with an octagonal break in the centre. This hall, which is 375 ft. in length over all, has very much the effect of the nave of a gigantic Gothic cathedral, and forms the noblest entrance known to belong to any existing palace. At its

[1] Perfect plans of this palace exist in the War Department of India. Without such plans it is very difficult to make any description intelligible. That in Keene's 'Handbook of Agra,' though useful as far as it goes, is on too small a scale and not sufficiently detailed for purposes of architectural illustration.

inner end this hall opened into a courtyard, 350 ft. square, from the centre of which a noble bâzâr (F, G) extended right and left, like the hall, two storeys in height, but not vaulted. One of these

431 Palace at Delhi (From a native Plan in the possession of the Author.)

led to the Delhi gate (H) on the south, the other, which I believe was never quite finished, to the garden. In front, at the entrance, was the Naubat Khâna (A), or music hall, beneath which

the visitor entered the second or great court of the palace, measuring 550 ft. north and south, by 385 ft. east and west. In the centre of this stood the Dîwân-i-'Âmm (B), or great audience hall of the palace, very similar in design to that of Agra, but more magnificent. Its dimensions are about 200 ft. by 100 ft. over all. In its centre is a highly ornamental niche, in which, on a platform of marble richly inlaid with precious stones,[1] and directly facing the entrance, once stood the celebrated peacock throne, the most gorgeous example of its class that perhaps even the East could ever boast of.[2] Behind this again was a garden-court, on its eastern side was the Rang Mahall (C), or painted hall, containing a bath and other apartments.

This range of buildings, extending 1600 ft. east and west, divided the palace into two nearly equal halves. In the northern division of it were a series of small courts, surrounded by buildings apparently appropriated to the use of distinguished guests; and in one of them overhanging the river stood the celebrated Dîwân-i-Khâss (D), or private audience hall—if not the most beautiful, certainly the most highly ornamented of all Shâh Jahân's buildings.[3] It is larger, certainly, and far richer in ornament than that at Agra, though hardly so elegant in design; but nothing can exceed the beauty of the inlay of precious stones with which it is adorned, or the general poetry of the design. It is round the roof of this hall that the famous inscription runs: "If there is a heaven on earth, it is this, it is this," which may safely be rendered into the sober English assertion, that no palace now existing in the world possesses an apartment of such singular elegance as this.

Beyond this to the northward were the gardens of the palace, laid out in the usual formal style of the East, but adorned with fountains and little pavilions and kiosks of white marble, that render these so beautiful and so appropriate to such a climate.

[1] When we took possession of the palace every one seems to have looted after the most independent fashion. Among others, a Captain (afterwards Sir John) Jones tore up a great part of this platform, but had the happy idea to get his loot set in marble as table tops. Two of these he brought home and sold to the Government for £500, and placed in the India Museum. No one can doubt that the one with the birds was executed by Florentine, or at least Italian artists, while the other, already mentioned, which was apparently at the back of the platform, is a bad copy from Raphael's picture of Orpheus charming the beasts. As is well known, that again was a copy of a picture in the Catacombs. There Orpheus is playing on a lyre, in Raphael's picture on a violin, and that is the instrument represented in the Delhi mosaic. Even if other evidence were wanting, this would be sufficient to set the question at rest. It certainly was not put there by the bigot Aurangzîb.

[2] It was broken up and carried off by Nadir Shâh in 1739.

[3] South of this and between it and the Rang Mahall is the Samman-burj, projecting from the line of the walls. At the north end is the Shâh Burj and at the south the Asâd Burj.

The whole of the area between the central range of buildings to the south, and eastward from the bâzâr, measuring about 1000 ft. each way, was occupied by the haram and private apartments of the palace, covering, consequently, more than twice the area of the Escurial, or, in fact, of any palace in Europe. According to the native plan I possess, which I see no reason for distrusting, it contained three garden courts, and some thirteen or fourteen other courts, arranged some for state, some for convenience; but what they were like we have no means of knowing. Not one vestige of them now remains. Judging from the corresponding parts of the palace at Agra, built by the same monarch, they must have vied with the public apartments in richness and in beauty when originally erected, but having continued to be used as an abode down to the time of the mutiny, they were probably very much disfigured and debased. Taste was, no doubt, at as low an ebb inside the walls of the palace during the last hundred years as it was outside, or as we find it at Lucknow and elsewhere, but all the essential parts of the structure were there, and could easily have been disencumbered from the accretions that had been heaped upon it. The idea, however, of doing this was far from entering into the heads of our governors. The whole of the haram courts of the palace were swept off the face of the earth to make way for a hideous British barrack, without those who carried out this fearful piece of Vandalism, thinking it even worth while to make a plan of what they were destroying or preserving any record of the most splendid palace in the world.

Of the public parts of the palace all that now remains is the entrance hall, the Naubat Khâna, the Dîwân-i-'Âmm and Khâss, and the Rang Mahall—long used as a mess-room—and one or two small pavilions. They are the gems of the palace, it is true, but without the courts and corridors connecting them they lose all their meaning and more than half their beauty.[1] Situated in the middle of a British barrack-yard, they look like precious stones torn from their settings in some exquisite piece of Oriental jeweller's work and set at random in a bed of the commonest plaster.[2]

[1] It ought in fairness to be added that, since they have been in our possession, considerable sums have been expended on the repair of these fragments.

[2] The excuse for this deliberate act of Vandalism was, of course, the military one, that it was necessary to place the garrison of Delhi in security in the event of any sudden emergency Had it been correct it would have been a valid one, but this is not the case. Without touching a single building of Shâh Jahân's there was ample space within the walls for all the stores and matériel of the garrison of Delhi, and in the palace and Salîmgarh ample space for a garrison, more than doubly ample to man their walls in the event of an émeute. There was ample space for larger and better ventilated barracks just outside the palace walls, for the rest of the garrison, who could easily have gained the shelter

TÂJ MAHALL.

It is a pleasure to turn from this destroyed and desecrated palace to the Tâj Mahall, which even more, perhaps, than the palace, was always the chef-d'œuvre of Shâh Jahân's reign (Woodcut No. 432). It, too, has been fortunate in attracting the attention of the English, who have paid sedulous attention to it for some time past, and keep it now, with its gardens, in a perfect state of substantial repair.

No building in India has been so often drawn and photographed as this, or more frequently described; but, with all this, it is almost impossible to convey an idea of it to those who have not seen it, not only because of its extreme delicacy, and beauty of material employed in its construction, but from the complexity of its design. If the Tâj were only the tomb itself, it might be described, but the platform on which it stands, with its tall minarets, is a work of art in itself. Beyond this are the two wings, one of which is a mosque, which anywhere else would be considered an important building. This group of buildings forms one side of a garden court 880 ft. square; and beyond this again an outer court, of the same width but only half the depth. This is entered by three gateways of its own, and contains in the centre of its inner wall the great gateway of the garden court, a worthy pendant to the Tâj itself.[1] Beautiful as it is in itself, the Tâj would lose half its charm if it stood alone. It is the combination of so many beauties, and the perfect manner in which each is subordinated to the other, that makes up a whole which the world cannot match, and which never fails to impress even those who are most indifferent to the effects produced by architectural objects in general.

The plan and section (Woodcuts Nos. 433, 434) explain sufficiently the general arrangement and structural peculiarities of the tomb or principal building of the group. The raised platform on which it stands is 18 ft. high, faced with white marble, and exactly 313 ft. square. At each corner of this terrace stands a minaret 133 ft. in height, and of the most exquisite proportions, more beautiful, perhaps, than any other in India. In the centre of this marble platform stands the mausoleum, a square of 186 ft., with the corners cut off to the extent of 33 ft. 9 in., the façade rising 92 ft. 3 in. from the platform. The centre of this is

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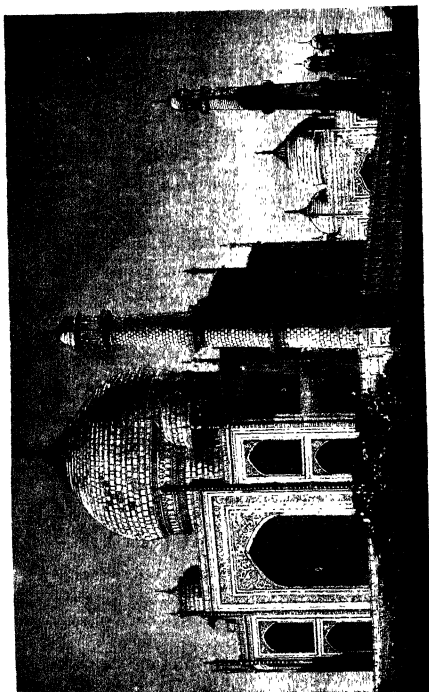
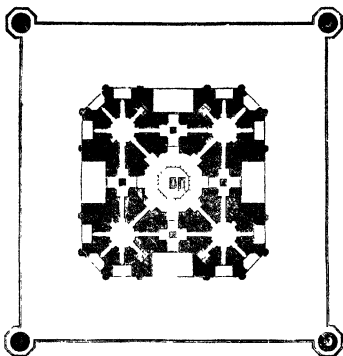
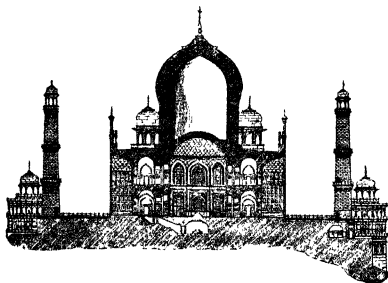
of the palace walls in the event of any sudden rising of the citizens.

The engineers, it would seem, perceived that by gutting the palace they could provide at no trouble or expense a wall round their barrack-yard, and for this or some such wretched motive of economy the palace was sacrificed!

[1] A plan of this garden, with the Tâj and all the surrounding buildings, will be found in the 'Journal of the Royal Asiatic Society,' vol. vii. p. 42.

432 View of Tāj Mahall. (From a Photograph.)

433 Plan of Tâj Mahall, Agra. (From a Plan by the Author) Scale 100 ft. to 1 in.

434. Section of Tâj Mahall, Agra. Scale 110 ft. to 1 in.

occupied by the principal dome, 58 ft. in diameter and rising 74 ft. above the roof or 191 from the platform, under which is an enclosure formed by a screen of trellis-work of white marble, a chef-d'œuvre of elegance in Indian art[1] Within this stand the tombs—that of Arjumand Bâno Begam, styled Mumtâz Mahall, in the centre, and that of her husband Shâh Jahân on one side. These, however, as is usual in Indian supulchres, are not the true tombs—the bodies rest in a vault, level with the surface of the ground (as seen in the section) beneath plainer tombstones, placed exactly underneath those in the hall above.

In every angle of the building is a small domical apartment of two storeys in height, 26 ft. 8 in. in diameter, and these are connected, as shown in the plan, by various passages and halls.

The light to the central apartment is admitted only through double screens of white marble trellis-work of the most exquisite design, one on the outer, and one on the inner face of the walls. In our climate this would produce nearly complete darkness; but in India, and in a building wholly composed of white marble, this was required to temper the glare that otherwise would have been intolerable As it is, no words can express the chastened beauty of that central chamber, seen in the soft gloom of the subdued light that reaches it through the distant and half-closed openings that surround it. When used as a Bârahdarî, or pleasure palace, it must always have been the coolest and loveliest of garden retreats, and now that it is sacred to the dead it is the most graceful and the most impressive of the sepulchres of the world.

This building, too, is an exquisite example of that system of inlaying with precious stones which became the great characteristic of the style of the Mughals after the death of Akbar All the spandrils of the Tâj, all the angles and more important architectural details, are heightened by being inlaid with precious stones, such as agates, bloodstones, jaspers, and the like These are combined in wreaths, scrolls, and frets, as exquisite in design as beautiful in colour; and, relieved by the pure white marble in which they are inlaid, they form the most beautiful and precious style of ornament ever adopted in architecture; though, of course, not to be compared with the intellectual beauty of Greek ornament, it certainly stands first

[1] From its design I cannot help fancying that this screen was erected after Shâh Jahân's death It is not mentioned in Bernier's account ('Travels,' Constable's ed p. 298). It certainly looks more modern, and is reported to be so It is said that the sarcophagus of the empress was originally surrounded by a screen of gold, studded with gems. The apartment had two silver doors, said to have cost 127,000 rupees, which were carried off and melted by Sûrajmall's Jâts when they sacked Agra in 1761

among the purely decorative forms of architectural design. This mode of ornamentation is lavishly bestowed on the tombs themselves and the screen that surrounds them, though sparingly introduced on the mosque that stands to the west of the Tâj, or on the fountains and surrounding buildings. The judgment, indeed, with which this style of ornament is apportioned to the various parts is almost as remarkable as the ornament itself, and conveys a high idea of the taste and skill of the Indian architects of that age.

The long rows of cypresses, which line the marble paths that intersect the garden at right angles, and are backed up by masses of evergreen foliage, lend a charm to the whole which the founder and his children could hardly have realised. Each of the main avenues among these trees has a canal along its centre studded with marble fountains, and each vista leads to some beautiful architectural object. With the Jamnâ in front, and this garden with its fountains and gateway behind; with its own purity of material and grace of form, the Tâj may challenge comparison with any creation of the same sort in the whole world. Its beauty may not be of the highest class, but in its class it is unsurpassed.

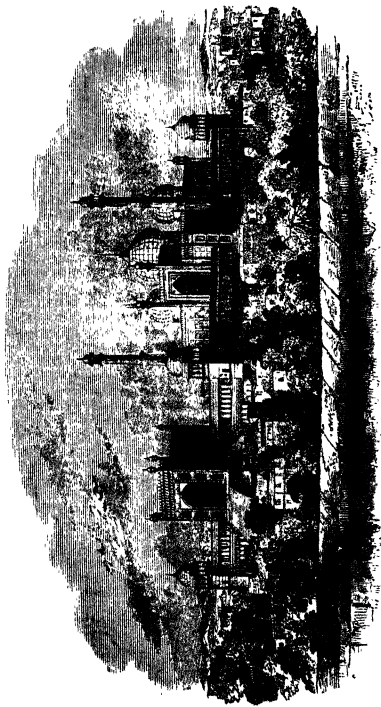
Though neither so magnificent nor so richly ornamented as some of his other buildings, the Motî Masjid or Pearl Mosque, which Shâh Jahân erected in the fort of Agra, 1646-1653, is one of the purest and most elegant buildings of its class to be found anywhere (Woodcut No. 435). It is not large, measuring only 187 ft. by 234 ft. over all externally; and though raised on a lofty stylobate, which ought to give it dignity, it makes no pretensions to architectural effect on the outside; but the moment you enter by the eastern gateway the effect of its courtyard is surpassingly beautiful. The whole is of white marble, and the forms all graceful and elegant. The only ornament introduced which is not strictly architectural, is an inscription in black marble, inlaid in the frieze of the mosque itself. The courtyard is nearly a square, 154 ft. by 158 ft. On three sides it is sur-

435. Plan of Motî Masjid
(From a Plan by Gen. Cunningham.)
Scale 100 ft. to 1 in.

rounded by a low colonnade 10 ft. 10 in. deep; but on the west, by the mosque itself, 159 ft. by 56 ft. internally, which was accessible at both ends from the private apartments of the palace. It opens on the court by seven arches of great beauty, and is surmounted by three domes of the bulbous form that became universal about this time (Woodcut No. 436). The

436. View in Courtyard of Motî Masjid, Agra (From a Photograph.)

woodcut cannot do it justice, it must be seen to be appreciated; but I hardly know, anywhere, of a building so perfectly pure and elegant, or one that forms such a wonderful contrast with the buildings of Akbar in the same place.

The Jâmi' Masjid at Delhi begun in 1644 but not finally completed till 1658, is not unlike the Motî Masjid in plan, though built on a very much larger scale, and adorned with two noble minarets, which are wanting in the Agra example; while from the somewhat capricious admixture of red sandstone with white marble, it is far from possessing the same elegance and purity of effect. It is, however, one of the few mosques, either in India or elsewhere, that is designed to produce a pleasing effect externally. As will be seen from the woodcut (No. 437), it is raised on a lofty basement, and its three gateways, combined with the four angle towers and the frontispiece

437. Great Mosque at Delhi from the N.E. (From a Sketch by the Author.)

and domes of the mosque itself, make up a design where all the parts are pleasingly subordinated to one another, but at the same time produce a whole of great variety and elegance. The mosque itself is 201 ft in length by 120 ft., and is flanked by two minars 130 ft. high, formed in alternate vertical stripes of sandstone and white marble, and crowned by light marble pavilions. Its principal gateway cannot be compared with that at Fathpur Sîkrî (Woodcut No. 425); but it is a noble portal, and from its smaller dimensions more in harmony with the objects by which it is surrounded.

It is not a little singular, looking at the magnificent mosque which Akbar built in his palace at Fathpur Sîkrî, and the Motî Masjid, with which Shâh Jahân adorned the palace at Agra, that he should have provided no place of worship in his palace at Delhi. The little Motî mosque that is now found there was added by Aurangzîb, and, though pretty enough in itself, is very small, only 60 ft square over all, and utterly unworthy of such a palace. There is no place of prayer, within the palace walls, of the time of Shâh Jahân, nor, apparently, any intention of providing one. The Jâmi' Masjid was so near and so apparently part of the same design, that it seems to have been considered sufficient to supply this apparently anomalous deficiency. It stands in the market place facing the Delhi gate of the fort on a platform about 11 ft. high, reached by steps in front and on the south side, but the great gateway in front was pulled down by the British during the Mutiny. It occupies but a small area—130 ft. by 100 ft.—and has five entrances. Its three domes, without necks, are a sort of compromise between the earlier flat dome and the tall form, subsequently introduced. They are of red sandstone with zigzag bands of white marble circling round them, not without beauty, if appropriate to the building on which they are placed. The mosque was built for, or in honour of, Jahân Ârâ Begam, the noble and accomplished daughter of Shâh Jahân, in 1644-48.

AURANGZÎB, OR 'ÂLAMGÎR, A.D. 1658-1707.

There are few things more startling in the history of this style than the rapid decline of taste that set in with the accession of Aurangzîb The power of the Mughal empire reached its culminating point in his reign, and there were at least no external signs of decay visible before the end of his reign. Even if his morose disposition did not lead him to spend much money on palaces or civil buildings, his religious fanaticism might, one would think, have led him to surpass his predecessors in the extent or splendour of their mosques or religious establishments.

This, however, is far from being the case. He did, indeed, as mentioned above, pull down the temple of Visvesvar, at Benares, in order to erect a mosque, whose tall and graceful minarets still form one of the most prominent features in every view of the city. After the shrine of Siva at Benares, the great temple of Kesava Deva or Krishna at Mathurâ was the most sacred in Hindustan. It had been erected, or rebuilt, by the famous Bîr-Singh Bundelâ during the reign of Jahângîr at a cost of thirty-three lâkhs of rupees;[1] and immediately after the destruction of the Visvesvar temple in 1669, "his religious Majesty" ordered this also to be levelled to the ground and a vast mosque, about 170 ft. in length, to be erected on the platform.[2]

It was not, however, from any love of architectural magnificence that this was done, but to insult his Hindû subjects and mark the triumph of Islâm over Hinduism. The mosques themselves are of no great magnificence, but, except that at Lâhor, none more important was erected, so far as I know, during his reign.

The Jâmi' or Bâdshâhi mosque at Lâhor, which is entered from the west side of the Hazûri Bâgh (Woodcut No. 430), was erected in 1674 from the proceeds of the estates of his eldest brother Dârâ Shikoh, whom he had put to death in 1659. The gateway from the Hazûri Bâgh, raised on a lofty platform set on arches, is an imposing structure of red sandstone and marble. In a chamber above this archway are preserved certain "relics" of Muhammad and his family. The mosque itself, erected under the supervision of Fidâî Khân Koka, the emperor's foster-brother, is a building of considerable merit and the latest specimen of the Mughal architectural style. It has three domes of white marble and very pleasing form, and in this and the general arrangements of the facade it is almost a copy of the Jâmi' Masjid at Delhi, but the marble ornamentation of the great central arch and the front arcade is very inferior in detail[3]; and the minarets, instead of terminating the façade, are quite plain octagonal towers, placed at the corners of the court about 175 yards apart. They are, as usual, of three storeys, but their cupolas had to be removed after an earthquake in 1840.

Few things can show how steadily and rapidly the decline of taste had set in than the fact that when that monarch was

[1] It was described in some detail by Tavernier, who saw it in 1650.—Ball's translation of Tavernier's 'Travels,' vol. ii. pp. 240ff. Bernier also mentions it in 1663.—'Travels' (ed. 1891), p. 284.

[2] Elliot's 'History of India,' vol. vii. p. 184. The idol—an image of Krishna—had just been removed by Râjasimha Rânâ of Udaypur, and is now at Nâthdwâra.

[3] 'Transactions Royal Institute of British Architects,' N. Ser. vol. v. p. 66; G. Le Bon, 'Les Monuments de l'Inde,' p. 220 and fig. 358. This mosque was used by the Sikhs as a magazine, but was restored to the Muhammadans in 1856.

residing at Aurangâbâd between the years 1660-70 having lost his favourite wife,[1] Rabia Daurâni, the tomb in honour of her memory—which is ascribed to her third son A'zam Shâh—was intended, it is said, to reproduce an exact copy of Shâh Jahân's celebrated tomb, the Tâj Mahall. But the difference between the two monuments, even in so short an interval, is startling. The first stands alone in the world for certain qualities all can appreciate, the second is by no means remarkable for any qualities of elegance or design, and narrowly escapes vulgarity and bad taste. In the beginning of the nineteenth century a more literal copy of the Tâj was erected in Lucknow over the tomb of one of its sovereigns. In this last, however, bad taste and tawdriness reign supreme. It is difficult to understand how a thing can be so like in form and so unlike in spirit, but so it is, and these three Tâjes form a very perfect scale by which to measure the decline of art after the great Mughal dynasty passed its zenith and began its rapid downward career.

Aurangzîb himself lies buried in the court of the tomb of Shaikh Zainu-d-Dîn, at Khuldâbâd, a small hamlet just above the caves of Elûrâ. The spot is esteemed sacred, but the tomb is mean and insignificant beyond what would have sufficed for any of his nobles. He neglected, apparently, to provide for himself this necessary adjunct to a Tartar's glory, and his successors were too weak, even had they been inclined, to supply the omission Strange to say, the sacred Tulsi-tree of the Hindûs once took root in a crevice of the brickwork, and flourished there as if in derision of the most bigoted persecutor the Hindûs ever experienced

As before observed, Aurangzîb also made a few additions to the palace at Delhi; but during his reign many splendid palaces were erected, both in the capital and elsewhere. The most extensive and splendid of these was that built by his aspiring but unfortunate brother Dârâ Shikoh. It, however, was converted into the English residency; and so completely have improvements, with plaster and whitewash, done their work, that it requires some ingenuity to find out that it was not wholly the work of the Anglo-Saxons.

In the town of Delhi many palaces of the age of Aurangzîb long escaped this profanation, but generally they are either in ruins or used as shops; and with all their splendour show too clearly the degradation of style which had then fairly set in, and which is even more apparent in the modern capitals of

[1] Aurangzîb married Dilras Bânû Begam, a daughter of Shâhnawâz Khân Safawi, in 1637, who bore to him five sons and four daughters.

Oudh, Haidarâbâd, and other cities which have risen into importance during the last hundred years.

Even these capitals, however, are not without edifices of a palatial class, which from their size and the picturesqueness of their forms deserve attention, and to an eye educated among the plaster glories of the Alhambra would seem objects of no small interest and beauty. Few, however, are built of either marble or squared stone: most of them are of brick or rubble-stone, and the ornaments in stucco, which, coupled with the inferiority of their design, will always prevent their being admired in immediate proximity with the glories of Agra and Delhi.

In a history of Muhammadan art in India which had any pretensions to be exhaustive, it would be necessary to describe before concluding many minor buildings, especially tombs, which are found in every corner of the land. For, in addition to the Imperial tombs mentioned above, the neighbourhoods of Agra and Delhi are crowded with those of the nobles of the court, some of them scarcely less magnificent than the mausolea of their masters.

Besides the tombs, however, in the capitals of the empire, there is scarcely a city of any importance in the whole course of the Ganges or Jamnâ, even as far eastward as Dacca, that does not possess some specimens of this form of architectural magnificence. Jaunpur and Allahâbâd are particularly rich in examples; but Patna and Dacca possess two of the most pleasing of the smaller class of tombs that are to be met with anywhere.

MYSORE AND OUDH.

If it were worth while to engrave a sufficient number of illustrations to make the subject intelligible, one or two chapters might very easily be filled with the architecture of these two dynasties. That of Mysore, though only lasting forty years —A.D. 1760-1799—was sufficiently far removed from European influence to practise a style retaining something of true architectural character. The pavilion called the Darya Daulat at Seringapatam resembles somewhat the nearly contemporary palace at Dîg in style, but is feebler and of a much less ornamental character. The tomb, too, of the founder of the dynasty, and the surrounding mausolea, retain a reminiscence of former greatness, but will not stand comparison with the Imperial tombs of Agra and Delhi.

On the other hand, the tomb of Abû-l Mansûr Khân Safdar Jang (1739-1754), the second of the Nawâb Vazîrs of Oudh,

situated about 5 miles from the Qutb at Delhi, is not quite unworthy of the locality in which it is found. Though so late in date (A.D. 1756), it looks grand and imposing at a distance, but it will not bear close inspection (Plate XXXIV.). It stands in a large garden and is raised on a terrace, 10 ft. high and 110 ft. square, over arched cells. The tomb is about 60 ft. square, and in the general arrangements of the plan is not unlike that of Humâyûn. The central room, about 20 ft. square, contains the very handsome marble monument, highly polished though somewhat florid in design. The floor and lower portion of the walls are faced with marble, and it is roofed by a flattish dome at a height of about 40 ft. Round this apartment are four square and four octagonal rooms on the ground floor, with the like arrangement above.[1] Respecting the whole, Mr. Fanshawe remarks.[2] "If the decoration of the corner towers is not successful, the combination of white marble and fawn-coloured sandstone in the centre is pleasing. The plaster decoration of the interior is perhaps more degraded than anything else about the tomb." Even this qualified praise can hardly be awarded to any of the buildings in the capital in which his dynasty was finally established

If mass and richness of ornamentation were in themselves sufficient to constitute architecture, few capitals in India could show so much of it as Lucknow It is, in fact, amazing to observe to what an extent this dynasty filled its capitals with gorgeous buildings during the one short century of its existence, but all—or with the fewest possible exceptions—in the worst possible taste Whatever may be said of the Renaissance, or revival of classical architecture in Europe in the 16th century, in India it was an unmitigated misfortune. The unintelligent vulgarity with which the "Orders" are there used, by a people who were capable of such noble things in their own styles, is one of the most startling phenomena in the history of architecture.

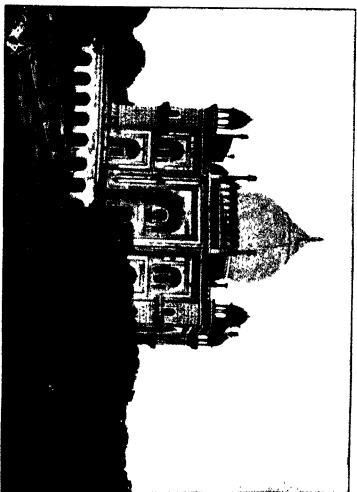
One of the earliest buildings of importance at Lucknow, in the Italian style, is the Mansion of Constantia,[3] built by General Claude Martin, as a residence for himself, and only completed after his death[4]

[1] Carr Stephen, 'Archæology of Delhi,' p. 278

[2] 'Delhi Past and Present,' p 246, from which the Plate XXXIV is reproduced

[3] So called apparently from the motto "Labore et Constantia," adopted by the General, and written up in front of his house.

[4] General Martin was born at Lyons in 1732, and died at Lucknow 1800. He commenced his career as a private soldier in the French army; but, in consequence of Lally's severity, deserted at the siege of Pondicherry, and joined the English service, in which he rose to the rank of Captain. He was transferred in 1776 to the service of the Nawâb of Oudh, and in 1796 was promoted to be Major-General. He left a considerable part of

PLATE XXXIV.

Tomb of Nawab Safdar Jang, near Delhi

[*To face page* 324, Vol. II.

The General was apparently his own architect, and has produced a design somewhat fantastic in arrangement, which sins against most of the rules of pure Palladian Art to an extent that would not be pardonable except in such a climate and under the peculiar circumstances in which it was erected. Notwithstanding this, there is something very striking in the great central tower, rising from a succession of terraced roofs one over the other, and under which are a series of halls grouped internally so as to produce the most pleasing effects, while their

438. View of the Martinière, Lucknow (From a Photograph.)

arrangement was at the same time that most suitable to the climate. The sky-line is everywhere broken by little kiosks, not perhaps in the best taste, but pleasing from their situation, and appropriate in the vicinity of a town so full of such ornaments as the city in whose proximity it is situated. Taken altogether, it is a far more reasonable edifice than the rival *capriccio* of Beckford, at Fonthill; and if its details had been purer, and some of those solecisms avoided which an amateur

his immense fortune (of about £330,000) to found educational establishments at Lyons, Calcutta, and Lucknow; but, owing to the length of his will, and his having drawn it up himself, in bad English, the principal part of his money was wasted in law expenses

architect is sure to fall into, it really does contain the germ of a very beautiful design (Woodcut No. 438).

The founder was buried beneath in a dimly-lighted vaulted chamber in the basement of the great tower.[1] His tomb is a simple, plain sarcophagus, standing on the floor, and at each angle a grenadier in full uniform stands with arms reversed, in an attitude of grief, as if mourning over the fall of his master. The execution of the monument, like everything about the place, is bad, but the conception is one of the finest that has been hit upon for a soldier's grave

When new, this mansion must have been very striking. At all events, its effect on the Oudh sovereigns was most remarkable For although their tombs, their mosques, and imâmbâras were still erected in the debased Saracenic style then prevalent, all the palaces of Lucknow were henceforth erected in this pseudo-Italian style. The Farhat Bakhsh built by Sa'âdat 'Alî Khân, the Chattar Manzil of Nasîru-d-Dîn Haidar, and numerous other buildings, display all the quaint, picturesque irregularity of the age of Francis I., combined with more strange details than are to be found in the buildings of Henry IV. These were far surpassed in grotesqueness by the Qaisar Bâgh of Wâjid 'Alî Shah This consisted of a great square of buildings surrounding an immense courtyard: the whole palace being in extent and arrangement by no means unlike the Louvre and Tuileries as joined together by Napoleon III But instead of the beautiful stone of Paris, all was brick and plaster; and instead of the appropriate details of that palace, the buildings surrounding the great court at Lucknow are generally two storeys in height and singularly various in design, generally with pilasters of the most attenuated forms running through both storeys, between which Italian windows with Venetian blinds alternate with Saracenic arcades, or openings of no style whatever. These are surmounted by Saracenic battlements, and crowned by domes such as Rome or Italy never saw, and the whole painted with colours as crude as they are glaring Inside there are several large and handsome halls, but all in the same bad taste as the exterior.

A detached building called the Begam Kothî is a better specimen of the style than anything perhaps in the Qaisar Bâgh itself, but it cannot either be called a favourable specimen of Italian Art, or a successful adaptation of the style to Oriental purposes, though it has a certain amount of picturesqueness

[1] Âsafu-d-daulâ had wished to buy the building for 100 lâkhs of rupees, and to prevent its confiscation by the native court after his death, General Martin had his tomb prepared in it. The mutineers in 1857-58 occupied the building, and they opened his tomb and scattered the bones. The tomb was restored in 1865.

which to some extent redeems its other defects (Woodcut No. 439). Like all the other specimens of Oriental Italian Architecture, it offends painfully, though less than most others, from the misapplication of the details of the Classical Orders.

439. Begum Kothi, Lucknow. (From a Photograph.)

Of course no native of India can well understand either the origin or motive of the various parts of our Orders—why the entablature should be divided in architrave, frieze, and cornice—why the shafts should be a certain number of diameters in height, and so on. It is, in fact, like a man trying to copy an inscription in a language he does not understand, and of which he does not even know the alphabet. With the most correct eye and the greatest pains he cannot do it accurately. In India, besides this ignorance of the grammar of the art, the natives cannot help feeling that the projection of the cornices is too small if meant to produce a shadow, and too deep to be of easy construction in plaster in a climate subject to monsoons. They feel that brick pillars ought to be thicker than the Italian Orders generally are, and that wooden architraves are the worst possible mode of construction in a climate where wood decays so rapidly, even if spared by the white ants. The consequence is, that, between his ignorance of the principles of Classic Art on

the one hand, and his knowledge of what is suited to his wants and his climate on the other, he makes a sad jumble of the Orders. But fashion supplies the Indian with those incentives to copying which we derive from association and education; and, in the vain attempt to imitate his superiors, he has abandoned his own beautiful art to produce the strange jumble of vulgarity and bad taste we find at Lucknow and elsewhere.

The great caravansarais which the Calcutta Bâbus and the native Râjâs have erected for their residences in Lower Bengal are generally in this style, but with an additional taint of vulgarity. But perhaps the most striking example of it all is a pavilion which was erected within the palace at Delhi by the last king. It stood behind, and was seen above, the great audience hall of Shâh Jahân, in which once stood the celebrated peacock throne, and is one of the noblest and most beautiful apartments of its class in any palace in the world. Over this, on entering the palace, you saw a little pavilion of brick and plaster, which its builder assumed to be the Doric Order, with Italian windows and Venetian blinds The building was painted green, the frieze red, and the ornaments yellow!—the whole in worse taste than the summer-house of a Dutch skipper, as seen overhanging a canal in Holland Contrasted with the simplicity and elegance of the white marble palace beneath, it told, in a language not to be mistaken, how deeply fallen and how contemptible were the late occupants of the throne, as compared with their great ancestors of the house of Timur, who ruled that mighty empire, and adorned its cities with those faultless edifices described in the previous part of this work.[1]

Even at Lucknow, however, there are some buildings into which the European leaven has not penetrated, and which are worthy of being mentioned in the same volume as the works of their ancestors Among these is the great Imâmbâra,[2] which, though its details will not bear too close an examination, is still conceived on so grand a scale as to entitle it to rank with the buildings of an earlier age It was built by Âsafu-d-daulâ, the fourth Nawâb, as a relief work during the famine of 1784.

As seen by the plan of the Imâmbâra (Woodcut No. 440), the principal apartment is 162 ft. long by 53 ft. 6 in. wide. On the two sides are verandahs, respectively 26 ft. 6 in. and 27 ft. 3 in. wide, and at each end an octagonal apartment, 53 ft. in diameter, the whole interior dimensions being thus 263 ft. by

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[1] 'History of the Modern Styles of Architecture,' 3rd ed, vol ii. pp 301f.

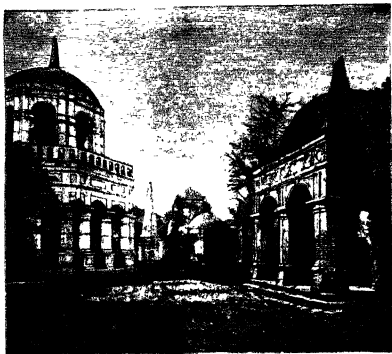
[2] Or Imâmbâri, a building in which the Moharram festival is celebrated and commemorative services of the deaths of 'Ali and his sons Hasan and Husain are held; and their Ta'zias or shrines are preserved in it Under this Imâmbâra its founder was buried. It now serves as an arsenal for the British garrison.

145 ft. This immense building is covered with vaults of very simple form and still simpler construction, being of a rubble or coarse concrete several feet in thickness, which is laid on a rude mould or centering of bricks and mud, and allowed to stand a year or two to set and dry. The centering is then removed,

440 Plan of Imâmbâra at Lucknow (From Measurements by the Author) Scale 100 ft. to 1 in

and the vault, being in one piece, stands without abutment or thrust, apparently a better and more durable form of roof than our most scientific Gothic vaulting, certainly far cheaper and far more easily made, since it is literally cast on a mud form, which may be moulded into any shape the fancy of the architect may dictate.

The earlier settlers in India felt themselves so completely expatriated and cut off from intercourse with Europe, that they adopted many of the habits and feelings of the people among whom they were dwelling. Among other peculiarities they seem to have been seized with a mania for sepulchral magnificence; and at Surat, Ahmadâbâd, and other early settlements on the West Coast, we find Dutch and English tombs of the 17th century which rival in dimensions and are similar in form to those of the Muhammadan princes of the day. It is true, when closely looked into, their details will not bear examination. Their builders had a notion that pillars should be round, and arches circular, and a hazy reminiscence of the Orders; but they could not draw them, and the natives could not realise what was wanted from imperfect verbal instructions. The consequence is, we find domes supported on twelve pillars of no style whatever, and native details mixed with something which has no name, in a manner that is perplexing, though often picturesque. Being all in brickwork and stucco, most of them are now falling to ruin; but that of Sir George Oxenden (died 1669) and his brother Christopher at Surat is still kept in repair, and would

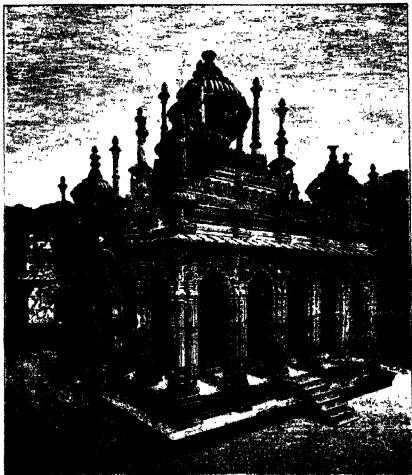
make a sensation in Kensal Green. It consists of a cupola in memory of Christopher within the loftier and larger mausoleum of his distinguished brother, which is of two storeys, with a

441 English Tombs, Surat Sir Geo Oxenden's on the left.
(From a Photograph)

height of 40 ft and diameter 25 ft.[1] (Woodcut No. 441). Some of the others, especially the older ones, are in better taste, and approach more nearly the native models from which they were all more or less copied [2]

It would be a curious and instructive subject of speculation to try to ascertain what would have been the fate of Muhammadan architecture in India had no European influence been brought to bear upon it. The materials for the enquiry are not abundant, but we can perceive that the decadence had set in long before the death of Aurangzîb. It is also evident

[1] Anderson's 'English in Western India,' p 196, 'Journal Bombay Br R Asiatic Society,' vol. xi pp. 146ff. The tomb of Baron H A van Reede, in the Dutch cemetery at Surat, is said to have exceeded the others in magnificence.

[2] 'History of Modern Architecture,' 3rd ed. vol. ii. p. 289.

that in such buildings as were erected at Agra or Delhi during the lapse of the 18th century, even where no European influence can be traced, there is a feebleness and want of true perception, though occasionally combined with a considerable degree of elegance. There, however, the enquiry fails, because European

442 Tomb of Maiji Sâhiba at Junâgadh (From a Photograph.)

influence made itself felt before any actual change had developed itself, but in remote corners the downward progress became apparent without any extraneous assistance. This is partially the case, as just mentioned, in Mysore; but there is a cemetery at Junâgadh, in Gujarât, where there exists a group of tombs, all erected within last century, some within the last forty or

fifty years, which exhibit more nearly than any others I am acquainted with the forms toward which the style was tending. This style is not without a certain amount of elegance in detail (Woodcut No 442).[1] The tracery of the windows is frequently fascinating from its beauty, and all the carving is executed with precision and appropriateness — but it is all wooden, or, in other words, every detail would be more appropriate for a sideboard or a bedstead, or any article of upholstery, than for a building in stone. The domes especially can hardly be traced back to their grand and solemn form as used by the Pathân architects. The pinnacles are fanciful, and the brackets designed more for ornament than work. It is a style, in fact, broken loose from the true principles of constructive design, and when this is the case, no amount of ornament, however elegant it may be, will redeem the want of propriety it inevitably exhibits.

It is curious, however, and instructive, in concluding our history of architecture as practised within the limits of India properly so called, to observe how completely we have been walking in a circle. We began by tracing how, two hundred years before Christ, a wooden style was gradually assuming lithic forms, and by degrees being elaborated into a style where hardly a reminiscence of wood remained. We conclude with finding the style of Halebîd and Bijâpûr, or Delhi, returning to forms as appropriate to carpentry but as unsuited to masonry as the rails or gateways at Bharaut or Sânchi. It might some time ago have been a question worth mooting whether it was likely it would perish by persevering in this wrong direction. That enquiry, however, seems idle now, as it is to be feared that the death-blow will be given, as at Lucknow and elsewhere, by the fatal imitation of a foreign style

[1] 'Archæological Survey of Western India,' vol. ii pp 176 177, and plates 37-39.

CHAPTER XI.

WOODEN ARCHITECTURE.

CONTENTS

KASHMÎR.

TURNING for the nonce from this quasi-wooden style—which is only an indication of decadence and decrepitude—it would be pleasing if we could finish our narrative with the description of a true wooden style as it exists in Kashmîr. The Jâmi' Masjid, in the city of Srînagar, is a large and important building, and if not so magnificent as some of those described in the preceding pages, is of great interest from being designed to be constructed in wood, and wood only. A knowledge of its peculiarities would, consequently, help us much in understanding many problems that arise in investigating the history of architecture in India. Unfortunately it is not a fashionable building, and of the 1001 tourists who visit the valley no one mentions it, and no photographer has yet set up his camera within its precincts.[1]

Its plan is the usual one: a courtyard surrounded by cloisters of three arcades wide on the east side and four on the other three, its peculiarity being that all the pillars that support its roofs are of Deodar pine—not used, of course, to imitate stone or stone construction, but honest wooden forms, as in Burmese monasteries and elsewhere. The carving on them is, I believe, rich and beautiful, and though dilapidated, the effect is said to be still singularly pleasing.

There is one other mosque in the same city, known as that

[1] If Lieut. Cole, instead of repeating plans and details of buildings which had already been published by Gen. Cunningham, had given us a plan and details of this unknown building, he might have rendered a service all would have been grateful for. What I know of it is principally derived from verbal communication with Col. Montgomerie, R.E.

of Shâh Hamadân (Woodcut No. 443), which is equally erected wholly in wood, and though very much smaller than the Jâmi'

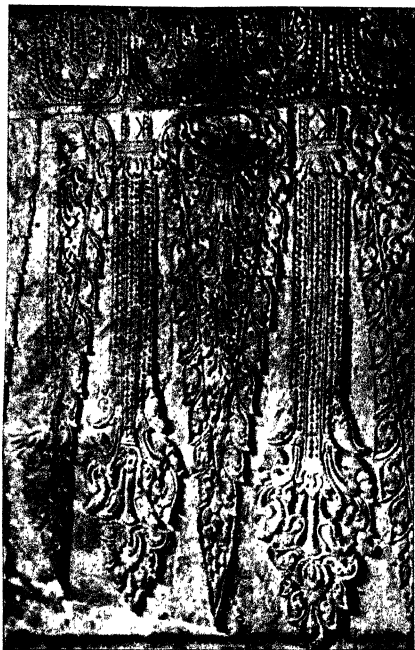
443 Mosque of Shâh Hamadân, Srînagar. (From a Photograph.)

Masjid, is interesting, in the first place, because its roof is probably very similar to that which once covered the temple at Mârtând (Woodcut No. 146), and the crowning ornament is evidently a reminiscence of a Buddhist Htî, very much altered,

it must be confessed, but still not so very unlike some found in Nepâl, at Swayambhûnâth (Woodcut No. 155), for instance, and elsewhere.

The walls, too, are of interest to us, because the mode in which the logs are disposed and ornamented resembles the ornamentation of the Orissan temples more clearly than any stone forms we can call to mind. The courses of the stone work in the tower of the great temple at Bhuvaneswar (Woodcut No. 315), and other temples there, produce so nearly the same effect, that it does not seem improbable they may have been derived from some such original. The mode, too, in which the Orissan temples are carved, and the extent to which that class of ornamentation is carried, is much more suggestive of a wooden than of a lithic origin.

These, however, are questions that can only be profitably discussed when we have more knowledge of this Kashmîri style than we now possess. When the requisite materials are available for the purpose, there are few chapters that will be of greater interest, or that will more worthily conclude the Architectural History of India than those that treat of the true and false styles of wooden art, with which the narrative begins, and with which it also ends.

PLATE XXXV.

Decoration of the Piers inside the Nan-paya Temple, Myinpagan

[*To face page* 339, Vol. II.

HISTORY

OF

EASTERN ARCHITECTURE

IN

FURTHER INDIA, CHINA AND JAPAN.

REVISED AND EXTENDED

BY R PHENÉ SPIERS, F.S.A., F.R.I.B.A., ETC.

BOOK VIII.

FURTHER INDIA.

CHAPTER I.

BURMA.

CONTENTS.

Introductory—Types of Religious Buildings—Circular Pagodas—Square Temples, etc.—Ruins of Thatôn, Prome, and Pagân—Monasteries.

INTRODUCTORY.

THE styles of architecture described in the preceding chapters of this work practically exhaust the enumeration of all those which were practised in India Proper, with its adjacent island of Ceylon, from the earliest dawn of our knowledge till the present day. It might, therefore, be possible to treat their description as a work complete in itself, and to conclude without reference to other styles practised in neighbouring countries. It will add, however, immensely, not only to the interest but to the completeness of the work, if the history is continued through the architectural forms of those countries which adopted religions originating in India, and borrowed with them architectural forms which expressed, with more or less distinctness, how far their religious beliefs differed from, or agreed with, those of the country from which they were derived.

The first of these countries to which we naturally turn is Burma, which adopted the religion of Sâkyamuni at a very early period, and borrowed also many of the Indian forms of architecture, but with differences we are now at a loss to account for. It may be, that, as we know nothing practically of the architectural forms of the Lower Bengal provinces before the beginning of the 6th century, these forms may have been taken to Prome and Pegu before that time, or it may be that a

northern or Tibetan element crept into Burma across the northern mountains by some route we cannot now follow. These are interesting problems we shall not be able to solve till we have a more critical knowledge than we now possess of Burmese buildings. Thanks to the zeal and intelligence of some English travellers, we do know a great deal about Burmese art. The works of Symes,[1] Crawfurd,[2] and, above all, of Colonel Yule,[3] are replete with information; but what they did was done in the intervals they were able to snatch from pressing public duties. What is really wanted is, that some qualified person should take up the subject specially, and travel through the country with no other object than to investigate its antiquities.

This was attempted between 1884-1888, when Professor Forchammer[4] was sent on a mission to study the temples in West Burma, but he unfortunately died before he could complete his task, and although his descriptions and plans of buildings at Mrohaung in Arakan and Kyaukku in Pagân are of great value, the former are not always quite intelligible owing to his want of acquaintance with architectural features.

This was not the case with Mr. Oertel,[5] an engineer and architect in the Government service, who visited Burma with a similar object, but his permit was limited to about two months, so that he was only able to see some of the architectural centres. His report, however, contains much useful information, and the photographs which he took are of some value.

In Mr. Nisbet's work,[6] published in 1901, is a chapter on Burmese architecture which shows careful research, and he is perhaps the first writer on the subject who has drawn up a list of the oldest buildings in Pagân, giving the dates of their erection and the names of the kings by whom they were built. Many other works have appeared since the British Annexation of Burma, in some cases containing illustrations from photographs which add to our knowledge. Among these should be mentioned General de Beylié's work,[7] in which nearly one hundred pages are devoted to Burma, where he carried out some researches in the early part of 1907. The most important source of information at present, however, is given in the annual reports published by the Government of Burma,[8] giving details of the

[1] 'Embassy to Ava in 1795.' London, 1800. 4to, 27 plates.

[2] 'Journal of Embassy to Court of Ava,' 1827. 4to, plates.

[3] 'Mission to Court of Ava, in 1855.' 4to., numerous illustrations.

[4] Arakan: I. Mahâmuni Pagoda, II. Mrohaung: III Akyab: Sandoway and the Kyaukku Temple, Pagân, 1891.

[5] 'Notes on a Tour in Burma in 1902,' by Fred. O. Oertel, F.R.I.B.A.

[6] 'Burma under British Rule and Before,' by John Nisbet, D.Œ.C., 1901.

[7] 'L'Architecture Hindoue en Extrême Orient,' by General L. de Beylié, 1907.

[8] 'Reports of the Superintendent of the Archæological Survey, Burma, 1902-1908.'

work required from year to year in order to preserve the existing monuments from further decay. These reports are supplemented in the India Office Library by a large number of photographs of the principal buildings with descriptive notes, giving in many cases the dates of their erection; it is to be hoped, therefore, that the subject will be taken up by some expert, and that the measured drawings of plans and sections, lists of which appear in the reports, may be published with reproductions of a selection of the fine series of photographs, some of which have been utilised in this work.

TYPES OF RELIGIOUS BUILDINGS.

The term Pagoda (in Burmese, Payâ) seems to be applied by Europeans in Burma indifferently to two very different kinds of structure. Firstly: a bell-shaped stûpa raised on a series of terraces or platforms and crowned with a conical finial. To these the term *tsedi* or *sedi*, which corresponds with the Chaitya in Nepâl and the Chedi of Siam, is sometimes given They consist of solid masses of brickwork, with a small sealed-up chamber in the basement containing supposed relics of Buddha. Secondly a temple which is square on plan with sometimes projecting porches or vestibules and, in the thickness of the walls, narrow corridors, the walls of which are decorated with frescoes or sculpture, with niches at intervals containing images of Buddha Their roofs are pyramidal, consisting of a series of storeys of moderate height set back one behind the other and crowned with the curvilinear *sikhara* of the Indo-Aryan style.

This may be considered a sufficient indication that they derived some, at least, of their architectural features, as well as their religion. from India; but as this form was adopted by both Jains and Hindûs in the north of India, from the mouths of the Indus to the Bay of Bengal in that age, it hardly enables us to point out the particular locality from which it was derived, or the time at which it was first introduced. It is, however, so far as we at present know, the only instance of its being found out of India Proper.

CIRCULAR PAGODAS OR CHAITYAS.

One of the earliest examples existing is that at Bu-payâ, at Pagân, ascribed to the first years of the 3rd century, A.D., which although it has been repaired and renovated in later periods probably retains the original type of its design. The centre portion or bell is of bulbous form, raised on a triple base and

the result on the plan would be three angle projections; an entrance porch D added on each face would give five angle projections, and so on.[1] The platforms on which the structure was raised would necessarily follow the same plan, and its repetition in the superstructure would result in the *s*ikhara of Hindû origin which has usually three angle projections. In the diagram here given the applied projecting plane on each face and its return are equal in dimension; this is not usually the case, and sometimes the former is only about half the latter. The nearest approach to the diagram is that shown in the temple of Vât Sisavai at Sukhodaya in Siam (Plate XLVII.), where these angle projections form prominent features in the design. In the Shwe-Hmaudau pagoda (Woodcut No. 445) the plan of the platform is octagonal, and here the projecting planes, three in number on each face, have given five angles.

445. Quarter-plan of Shwe-Hmaudau Pagoda at Pegu. (From Symes) Scale 100 ft. to 1 in.

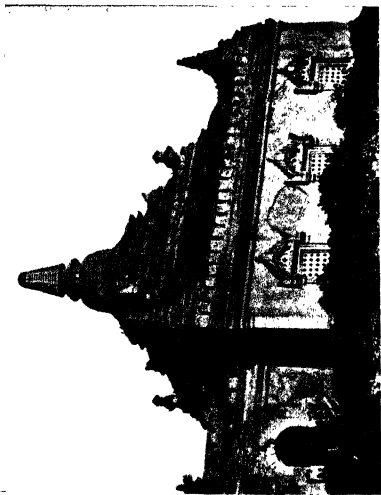
An instance of its introduction in the superstructure is shown in the Abhayadâna pagoda (Plate XXXVI.), where there are three projecting angles in the elaborate cornice, carrying the finial. In the Seinnyet pagoda a similar cornice is more complicated, having seven projecting angles and eight vertical fillets projecting one in front of the other.

The principal variations made in the design of the *Zedi* are those of the relative proportion of the bell to the rest of the structure, the outline of the same and its superstructure, and the decoration employed. Thus in the Lokânanda pagoda in Pagân, built by Anaurahtâ in 1059, the bell is of immense size, being three-sevenths of the total height of the structure, including the triple base and finial, and that is generally the characteristic of the earlier examples, but, where occasionally employed to crown the *s*ikharas of the square temple, as in the Abhayadâna temple, it is so small as to be scarcely recognisable. In the older pagodas of Pagân the several mouldings are all more or less convex in outline, but in later examples, and

[1] These pagodas are generally described as polygonal on plan, a term which is misleading: multiplane would be more correct.

PLATE XXXVI

The Abhayadana Temple

[To face page 343, Vol II.

especially in those cases where the pagoda has from time to time been built over and enclosed, as in the Shwe-Hmaudau and Shwe-Dagôn, the converse outlines are alternated with concave silhouettes which, whilst it lessens the vigour and boldness of the design, gives it at times a certain elegance; so far has that been carried that it is sometimes possible to determine the date of the structure by its attenuation. This is shown in the Shwe-Dagôn (Plate XXXVII.), where in the last rebuilding in 1768 the lower part of the bell was widely spread out, and the finial or spire, originally conical with straight side, has been given a concave outline.

The decorative treatment of the pagoda resolves itself into three divisions.

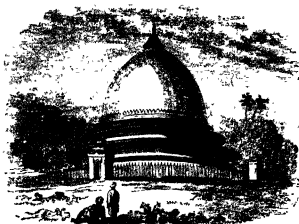
(A) The boldly projecting mouldings of the sides of the platforms or terraces, the introduction of square terra-cotta panels with figure bas-reliefs between the upper and lower mouldings, and in later examples the addition of an elaborate cresting.

(B) The carving of lotus leaves at the base of the bell and in the upper part of the finial, the rich ornament applied to the bell consisting of pendants on its upper surface, a deep moulded ring round with bead festoons held in the mouths of gorgons and other surface ornament above the ring The pagodas of Seinnyet and Petleik have in addition niches with figures of Buddhas on the four sides facing the cardinal points, with enriched pediments over-crowned with miniature storeys and sikharas.

And (C) additional decorative features such as ranges of small pagodas on the lower terraces as in the Shwe-Dagôn and the Shwe-Hmaudau, or at each angle of the several terraces, in many cases taking the form of elaborate finials which in the Seinnyet pagoda are of fine design

Some of the pagodas have in the centre of each face a flight of steps leading to the upper terraces, and on the level of the first platform an archway similar to the examples in Boro-Budur In one or two cases also there are porches in front of each flight of steps, cruciform in plan, similar to those of the temples of Cambodia.

In the Sapada and Tamani pagodas, above the bell is a square moulded plinth which by some authorities is thought to be symbolic of the chamber in the basement containing the Buddhist relics, and is in fact known as the "dhâtu-garbha" or relic-chamber. The feature is, however, of ancient origin, as it is shown on the dâgabas in Kârlê and Ajantâ (*ante*, vol. i., Woodcuts Nos. 70 and 71) It forms an essential feature in all the Sinhalese Dâgabas, and as Sapada, the builder of the pagoda bearing his name, was a Buddhist monk from Ceylon, he probably introduced it into Burma.

Two other pagodas of exceptional form in and near Sagaing exist, the Tupayôn or Stûpârâma and the Kaung Hmaudau: the former was built in the 15th century by Narapati, King of Ava. Its plan is circular, and it consists of three storeys set back one behind the other with low pitched roof over the two lower storeys and a flat weathered top. On the vertical sides of the three storeys are projecting features like dormer windows, with a niche sunk in each; there are forty-eight of these on the lower, forty-two on the middle, and thirty-six on the upper storey. The Kaung Hmaudau pagoda, not far from Mingûn, on the same side of the river, bears a close resemblance to the Indian topes; the mass of the dome, according to Colonel Yule,[1] is about 100 ft. diameter. It is taller than a semicircle—which would indicate a

446 Kaung Hmaudau Dagaba, near Sagaing. (From Yule.)

modern date—and stands on three concentric bases, each wider than the other. Round the whole is an enclosure, consisting of 812 stone posts, each standing 4 ft. 6 in. out of the ground, with receptacles in their heads for lights, each head being hollowed out to hold the same, and divided into four quadrants by four stone gateways (Woodcut No. 446). An inscription, on a white marble slab, records the erection of this pagoda between the years 1636 and 1650. This fixes its date, and is curious as showing how little real change had occurred during the eighteen centuries which elapsed between the erection of the tope at Sânchi (*ante*, vol. i., Woodcuts Nos. 12-14) and the 17th century.

Perhaps the most important pagoda in the Burmese Empire

[1] 'Mission to Ava,' p. 65.

is the great Shwe-Hmaudau[1] at Pegu, of which a plan and elevation are given in Symes' account of his embassy to Ava. As will be seen from the plan (Woodcut No. 445), it deviates from the usual type, which is exclusively used in the edifices of this class hitherto described, having an octagonal base together with those elaborated multiplane forms which are affected by all the Hindû builders of modern date. It returns, however, to the circular form before terminating, and is crowned, like all Burmese buildings of this class, by an iron Htî richly gilt. Another peculiarity is strongly indicative of its modern date, namely that around its base is a double range of miniature pagodas—a mode of ornamentation that subsequently became typical in Hindû architecture — their temples and spires being covered, and, indeed, composed of innumerable models of themselves, clustered together so as to make up a whole. As before remarked, something of the same sort occurs in Roman art, where every window and opening is surmounted by a pediment or miniature temple end, and in Gothic art, where a great spire is surrounded by pinnacles or spirelets; but in these styles it is never carried to the same excess as in Hindû art.

The building stands on two terraces, the lower one about 10 ft. high, and 1391 ft. square; the upper one, 20 ft. in height, and 684 ft. square; from the centre rises the pagoda, the diameter of whose base is 395 ft. The small pagodas surrounding the base are 27 ft. high, and 40 ft. in circumference· they are in two tiers, the lower one of 75 and the upper 53, in all 128; while the great pagoda itself rises to the height of 324 ft. above its terrace, or 354 ft. above the country, thus reaching a height about equal to that of St. Paul's Cathedral: while the side of the upper terrace is only 83 ft. less than that of the great Pyramid.

Tradition ascribes its commencement to two merchants, who raised it to the height of 12 cubits, at an age slightly subsequent to that of Buddha himself. Successive kings of Pegu added to it from time to time, till at last it assumed its present form, most probably about three or four centuries ago.

The next in importance, so far as we know, is the more generally known Shwe-Dagôn pagoda at Rangoon (Plate XXXVII.), a building very similar in dimensions to the last named, and by no means unlike it, except that the outline of the base is cut up to even a greater extent, and the spire more attenuated—both signs of a comparatively modern date.

Its history in fact follows that of many of the pagodas of Burma: originally it is said to have been only 27 ft. high and

[1] Literally "Golden great god."

PLATE XXXVII.

From a Photograph] The Shwe-Dagon, Rangoon

[*To face page* 346 Vol. II

to have attained its present height and dimension by repeated casings many feet in thickness. About the middle of the 15th century the height of the pagoda was raised to 129 ft., terraces were built round the hill, and the top—a platform—was paved with flagstones. In 1768 it reached its present height of 321 ft., not including the new Htî, which was presented by King Mindôn Min; the platform now measures 900 ft. by 685 ft. and rises about 165 ft. above the base of the hill. On the top of the ground storey of the pagoda, the plan of which is multiplane with seven angular projections, are several miniature pagodas as at Pegu.

There is, however, no essential difference between the two buildings, and this is principally interesting as leading us one step further in the series from the solid hemispherical mound to the attenuated spire, which, both in Burma and Siam, is the modern form usually assumed by these edifices, till they lose all but a traditional resemblance to the buildings from which they orginally sprang.

The general appearance of these can be judged from the illustration (Plate XXXVII.) on the right and left of which are smaller pagodas which, with numerous other structures, are built round the platform. These are seen in the following woodcut (No. 447), where is also shown one of the leogriffs which may be considered as the last lineal descendant of those great human-headed winged lions that once adorned the portals at the palaces at Nineveh and which there served a definite constructional purpose, whereas here they are simply isolated features.

The Shwe-Dagôn pagoda, like all the more important ones, is fabled to have been commenced about 2300 years ago, or about the era of Buddha himself; its sanctity, however, is owing to its containing relics, not only of Gaudama, the last Buddha, but also of his three predecessors—Buddha having vouchsafed eight hairs of his head to its two founders, on the understanding that they were to be enshrined with the relics of the three former Buddhas, where and when found.[1] After numerous miraculous indications, on this spot were discovered the staff of Kakusandha, believed to have lived some 3000 years B.C., the water-dipper of Konâgamana, and the bathing garment of Kassapa, which, with the eight hairs above mentioned, are enshrined within this great pagoda.[2] Originally, however, notwithstanding the value of its deposit, the building was small, and it is not more than a century and a half since it assumed its present form.

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[1] *Ante*, vol. i. p. 63.

[2] 'Asiatic Researches,' vol. xiv. p. 270. In their Payâs, Chaityas or Stûpas the Burmese place Kankasan or Kakusandha on the east, Gaunagon or Konâgamana on the south, Kathaba on the west, and Gotama on the north.—Conf. *ante*, vol. i. pp. 230*n*, 277*n*; 'Buddhist Art in India,' p. 195.

A crowd of smaller pagodas of all sizes, from 30 ft. to 200 ft. in height, surrounds the larger one; in fact there is scarcely a village in the country that does not possess one or two of these structures, and in all the more important towns they are numbered by hundreds; indeed, they may almost be said to be innumerable. They are almost all quite modern, and so much alike as

447. View of Pagoda in Rangoon (From a Photograph.)

not to merit any distinct or separate mention. They indicate, however, a great degree of progressive wealth and power in the nation, from the earliest times to the present day, and an increasing prevalence of the Buddhistic system. This is a direct contrast to the history of Ceylon, whose glory was greatest in the earliest centuries of the Christian Era and was losing its purity at the time when the architectural history of Burma first dawns

upon us. Thus the buildings of one country supplement those of the other, and present together a series of examples of the same class, ranging over more than 2000 years, if we reckon from the oldest dâgabas in Ceylon to the most modern in Burma.

Another example of importance, the Shwe-zigon pagoda near Pagân, might here be included, especially as, although the original pagoda founded in 1094 was, according to Mr. Nisbet, built over and increased in 1164, it at all events is less attenuated than either the Shwe-Tshandau or the Shwe-Dagôn. It retains also in its three lower storeys, with terraces and processional paths round, the primitive form of the early dâgabas.

At a place called Mingûn, about half-way between the former capital of Amarapura and the present one at Mandalay, are two pagodas, which are not without considerable interest for our present purposes; if for no other reason, at least for this—that both were erected about a hundred and twenty years ago, and show that neither the forms nor aspirations of the art were wholly extinguished even in our day. The first, the Sinbyumè pagoda, is circular in form, and was erected in the year 1790, in the reign of King Bodauhpayâ (1781-1819). As will be seen from the woodcut (No. 448), it is practically a dâgaba, with five concentric procession-paths. Each of these is ornamented by a curious serpent-like balustrade, interspersed with niches containing, or intended to contain, statues of Buddha, and is accessible by four flights of steps facing the four cardinal points. The whole is surrounded by a low circular wall 750 ft. in diameter, said to represent the serpent Ananta. Within this is a basement, measuring about 400 ft. across, and this, with the procession-paths and dâgaba on the summit, make up seven storeys, intended, it is said, to symbolise the mythical Mount Meru.[1]

The building was severely damaged by the earthquake of 1838, but was restored by King Mindôn Min in 1874; above the central tower shown in the woodcut (No. 448) a low storey has been built with projecting dormers and niches in them as in the Tupayon pagoda and, crowning the same, an octagonal base in two tiers supporting the bell, the finial with rings round and the Htî; a series of five consecutive entrance porches

[1] The above particulars are abstracted from a paper by Col. Sladen in the 'Journal of the Royal Asiatic Society,' vol. iv. (N.S.) p. 406, with remarks by Col. Yule and others. It is curious that there is a discrepancy between the native and the European authorities as to the number of storeys—not mechanical, of course, but symbolical; whether, in fact, the basement should be counted as a storey, or not. The above I believe to be the correct enumeration. We shall presently meet with the same difficulty in describing Boro-Budur in Java.

448. Sinbyume Circular Pagoda at Mingûn. (From a Photograph.)

also rising one behind the other have been carried up to the height of the central tower.

It will be recollected that, when speaking of the great dâgabas of Anurâdhapura in Ceylon, it was pointed out (*ante*, vol. i. p. 230) that they had three procession-paths round their bases, ascended in like manner by flights of steps opposite the four cardinal points of the compass. It is interesting to observe here, after a lapse of 2000 years, and at a distance of nearly 1500 miles, the changes have been so small. It is true the number of procession-paths has increased from three to five, and the terraces become relatively much more important than in the older examples; but, barring this and some changes in detail, the monuments are practically the same, notwithstanding all the curious varieties that have sprung up in the interval.

The other building known as the Mingûn-payâ was commenced by Bodauhpayâ, who spent twenty years over it, and died in 1819, leaving it incomplete. It would seem to have been an attempt to revive the old square forms of Pagân, in the same manner as the other was intended to recall memories of the older forms of early Indian Buddhism. "It stands on a basement of five successive terraces, of little height, the lower terrace forming a square of 450 ft. From the upper terrace starts the vast cubical pile of the pagoda, 230 ft. square in plan, and rising, in a solid mass, to the height of about 100 ft., with slightly sloping walls. Above this it contracts in successive terraces, three of which had been completed, raising the mass to a height of 165 ft., at the time the work was abandoned."[1] From a model standing near, it is inferred that, if completed, it would have risen to the height of 500 ft.; it is even now a solid mass containing between 6,000,000 and 7,000,000 cubic ft. of brickwork. Had it been carried out, it would have been the tallest building in the world. It was, however, shattered by an earthquake in 1838; but, even in its ruined state, is as large and imposing a mass of brickwork as is to be found anywhere.[2] Since the pyramids of Egypt, nothing so great has been attempted, and it belongs to the 19th century!

Belonging to the same century and in its way a remarkable building is the Kyauktaugyî temple at Amarapura, built in 1847 A.D. by King Pagân Min on the model of the Ânanda at Pagân. The illustration (Plate XXXVIII.) shows that the temple is raised a few feet from the ground so as to allow of a broad flight of steps in front of the principal front, and that instead of the two ranges of windows on the ground storey, as in the Ânanda, are lofty doorways which give great import-

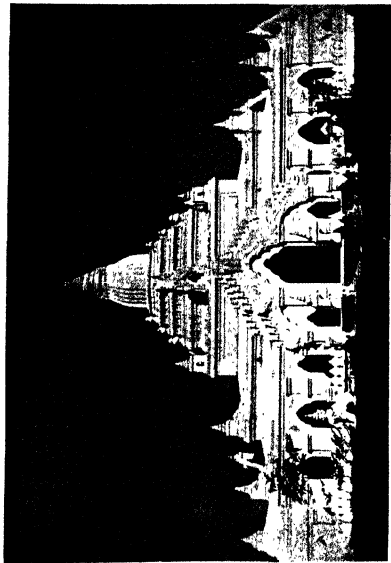
[1] 'Mission to the Court of Ava,' p. 169.
[2] A view of this ruin will be found in Yule's 'Mission to Ava,' plate 23.

methods is due to the material employed, brick, which being of small dimensions necessitated a system of construction entirely different from that which obtained in India[1] and other countries where stone was in abundance.

It would be a curious speculation to try and find out what the Hindûs and Jains in western India would have done had they been forced to use brick instead of stone during the 11th and 12th centuries, which was the great building epoch on the Irâwadî and in Gujarât. Possibly they would have arrived at the same conclusion, in which case we can only congratulate ourselves that the westerns were not tempted with the fatal facility of bricks and mortar.

It is, however, remarkable, considering the close connection between India and Burma, so far as architectural style is concerned, to find the arch and vault employed systematically throughout the latter country in buildings many of which are said to have been built by Indian workmen (though this term may have been generally employed to signify a foreign origin), and further to note that those features appear only when they became an actual necessity, as in doorways requiring wide openings, or the covering over of corridors and small internal chambers with a permanent incombustible material to carry these roofs. It should here also be pointed out that those roofs were, as a rule, in the square temples, not flat terraces but assumed an ogee section following the rise of the vault. This is clearly shown in the Ânanda (Plate XLI.), the Kyauktaugyî (Plate XXXVIII.), and in the Abhayadâna, south of Pagân (Plate XXXVI.). In the latter illustration is shown on the left the side entrance doorway to the vestibule; in this case there is only one ring of voussoirs, but there are other examples in which two concentric rings of voussoirs were employed. In the temple of Nathlaung-gyaung, built by Taungthugyî in the 10th century, the upper ring is carried over the centre portion only of the lower ring, the haunches of the arch up to two-thirds of the height being filled with brickwork laid in horizontal courses. As a rule the span of these arches is only about 6 ft., but in the temple of Payâtaung, in Old Prome, there is an arch of apparently about 16 ft. span in which there are three concentric rings of voussoirs. Although the Burmese architects fully recognised the constructive value of the arch, it does not appear to have been held in high esteem by them as a decorative feature, and in consequence they masked it by a coat of stucco as in the Abhayadâna pagoda (Plate XXXVI.), or by some applied decoration which in many cases has now fallen off,

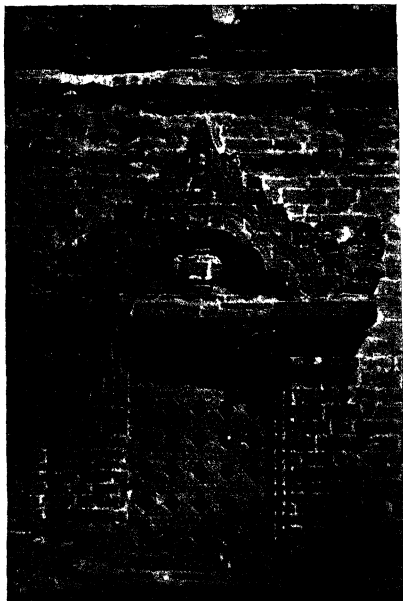
[1] Of course excepting the arches in the tower at Bodh-Gayâ, which, in Fergusson's opinion, were introduced by these very Burmese in 1305. See *ante*, vol i. pp. 77-79.

PLATE XXXVIII

From a Photograph] The Kyauktawgyi Temple, Amarapura [To face page 353, Vol II

exposing the arched construction behind it. An illustration of this can be seen in Plate II. of Yule's work, representing the Temple of Sembyo Koo (Tsûlâmani), where half of the applied decoration has fallen off the left hand side of the doorway. That which remains on the other side shows arched forms twisted into a variety of curves, which, like those of the window pediments of Nan Payâ (Plate XXXIX.), have no constructional value. The natural head of a niche sunk in the wall should either be a semicircular or pointed arch, but few of the niches in the corridors of the Ânanda temple are thus terminated; they are generally shapeless and in a few cases are quatrolobed. In fact the Burmese would seem to be the only people who, having discovered the constructional value of the arch proper and known how to build it with radiating voussoirs, not only never employed it as a decorative feature, but seemed to be ashamed of its invention, and endeavoured to hide or mask it.

In the vaulting over of these corridors, which in the Ânanda temple are from 7 to 8 ft wide, the Burmese builders adopted a semi-pointed barrel vault, the section of which was similar to that of the flying buttress of a cathedral, except that it was rounded off at the top. This vault, which arose from the outer to the inner wall of the corridor, was a much stronger form than that employed by the Romans with their semicircular barrel vaults, though perhaps not of so agreeable a form. The adoption of the semi-pointed barrel vault (Woodcut No 450) lessened the thrust, so that it is not surprising to find that nearly all these vaults exist down to the present day, suffering only from the percolation of rain and the growth of trees and shrubs on the top. Over the central corridors or vestibules of the Ânanda temple a pointed arch barrel vault is employed of similar pitch to that shown in the woodcut (No. 453), representing the section of the Thatpyinnyu temple. In a section given by Forchammer of the Dukkantein temple in Mrohaung, the upper chamber has a semicircular barrel vault, but there the walls were of great thickness. It has already been noticed that the roof of all these square temples was as a rule laid direct on the vault, this was the case with the Lemyet-hnâ temple already mentioned, and in the Bèbè temple, both in Prome, and also in the Patothamya temple in the province of Myingyan, the two latter ascribed to the 10th century. The form of these vaults and roofs are shown in Woodcut No. 450.

The two most interesting temples of this class are those at Nan Payâ and Nagâyôn just south of Pagân; the first is considered to have been built by King Anaurahtâ about 1050 and the second by Kyantsitthâ in 1064. According to General de

PLATE XXXIX.

Window of Nan-Paya Temple, Myinpagan.

[To face page 354, Vol. II

Beylié the plan of Nan Payâ is about 33 ft. square, with a central and four other piers inside, each measuring 6 ft. 6 in. square, carrying the roof; externally this is stepped back and in the centre is a square moulded plinth with a dormer window on each side through which light is thrown on to the images inside, the whole being crowned with a sikhara. The temple is preceded by a vestibule 24 ft. wide and 18 ft. deep, which is lighted by a window on each side. On each of the other sides of the temple are three windows flanked by pilasters, carrying a pediment of enriched design (Plate XXXIX.) bearing considerable resemblance to those in Cambodia. The filling of the window is said to be in stone, which is the case in that of the Kyaukku temple, but in this case the jointing suggests a brick material. The plan of Nagâyôn is similar to that of Nan Payâ, but there are five windows on each of the three sides. Greater importance is also given to the vestibule, which consists of central and side aisles, the former of greater height so that the section resembles that of a Christian church, without, however, any clerestory windows, the vestibule being lighted by windows in the side aisles.

Both of these temples are of considerable importance on account of the rich ornament carved externally and internally. The design and style of this ornament is similar to that which is found in the lower storey of the temple of Kyaukku in the most northern part of Pagân. This was considered by Forchammer to be a remnant of North Indian Buddhism, which existed in Burma before the introduction of the Southern Buddhist school from Thatôn. Plate XXXIX. represents the rich type of ornament carved on the internal piers of Nan Payâ, the upper portion or frieze consists of gorgon heads or Kîrttimukhs carrying beaded festoons and pendants. This is repeated as an external frieze at the same temple, as also at Kyaukku and Nagâyôn. In later work, and more particularly as a decoration round the bell-shaped dâgabas of the *zedis*, it is constantly employed The decoration of the lower part of the pier (Plate XXXV.) consists of the gorgon head to a larger scale, carrying foliage arranged to form a pendant, with bead pendants between. A somewhat similar decoration of pendants is found on pilasters—as on those of the window at Nan Payâ (Plate XXXIX.) and on the angle pilasters of many of the great temples in Pagân. The gorgon heads, beaded festoons and pendants are occasionally found on Chinese bronzes, easy of importation, so that it may have been from China or Lhâsa that these decorative features were taken and reproduced, not only in Burma, but in Cambodia and Jâva.

The temples of Nan Payâ and Nagâyôn are generally con-

sidered to have been the prototypes of the Ânanda, but, as has already been pointed out, the temples of Lemyet-hnâ, Bèbè-payâ and Patothamya, of still earlier date, have all the same plan, with internal corridors, from which it follows that there already existed, long before the conquest of Thatôn in 1057, a type of temple which was adopted by King Anaurahtâ as his model for the Ânanda. It is, however, from this period that the great development took place in Burmese architecture resulting in the magnificent series of examples not only of the square temples but of the pagodas, a development which lasted till the invasion of Pagân by Kublai Khân in 1284, the last building of importance erected during this period being the pagoda of Mangalachetî, built by Tarûk-pyemin about 1274 A.D.[1]

Before passing on to a description of the principal temples at Pagân and the Burmese monasteries, there are two other classes of religious structures, the Thein and the Pitakat-Taik, which might here be included.

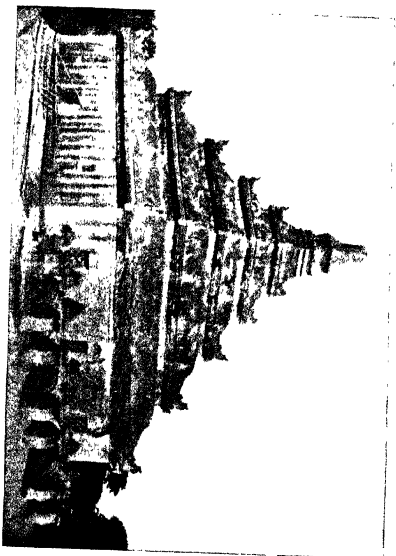
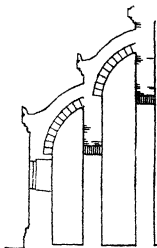
The Thein or ordination hall for priests would seem to correspond with the Bôt of Siam, except that they are not as a rule found in the temple enclosure, as in the latter country, and there are very few examples. The Upalí-Thein in Pagân dating from the 13th century, is rectangular on plan and is divided into nave and side aisles by arcades the arches of which are said to be well built. The centre aisle or nave is loftier than the side aisles, and in section the structure is similar to that of a Chaitya temple or of a Christian church, except that there are no clerestory windows. The summit of the roof is decorated with terra-cotta ridge tiles, and in the centre is an attenuated dâgaba. On the top of the nave and aisle walls is a cresting or pierced parapet similar to that which crowns the terrace walls of the pagodas. The interior is said to be decorated with fine and brilliant frescoes. There is a second Thein at Pegu dating from 1476.

The Pitakat-Taik or sacred library at Pagân was built by Anaurahtâ in 1057 to house the Buddhist scriptures which he brought away from Thatôn. It was probably built by the masons whom he brought over from Thatôn, and was presumably a copy of the original library there. The plan of the structure is square with apparently, judging from the roof, four parallel corridors round the central chamber or cell. The illustration (Plate XL.) shows that externally the ground

[1] For an account of this temple and its interesting enamelled tiles, see 'Veröffentlichungen aus dem Königl. Museum für Völkerkunde,' Bd. V. (Berlin 1897); de Beylié calls it Sun Min Dgy, and remarks, "il a éveillé les convoitises d'archéologues peu scrupuleux qui en ont arraché de nombreux bas reliefs en faïence."—'L'Architecture Hindoue en Extrême Orient,' pp. 259-261.

PLATE XL

The Pitakat-Taik Pagan

[*To face page* 356, Vol II

storey is of moderate height, and that the roof consists of four storeys, set back one behind the other, with ogee roofs between resting direct on the vaults of the corridors (see Woodcut No. 450). The antefixæ and cresting above the eaves of the roof are apparently copies of the carved woodwork which is found on the Pyâtthat of a Kyaung or monastery, and in fact the whole structure bears some resemblance to a Pyâtthat when built in brick instead of in wood, except that it is only about half the height. The corridors are lighted through perforated stone windows on three sides. On the fourth or entrance front are three doorways with approaches between balustrades with carved terminations in front, like those in Fig. 455 and 456. This suggests that in Thatôn the original library was raised a few feet above the ground as a precaution against inundations, and that the masons who built this one reproduced the balustrade and termination in front of the doorways as a necessary approach. The feature crowning the building is called a *dubika* in the Burmese archæological report, and is similar to the finial of the Pyâtthat of the king's palace at Mandalay (Woodcut No. 455) In later examples of the Pitakat-Taik and of the Shwe-daik or sacred treasury at Amarapura and Mandalay, the buildings are raised on a platform with flights of steps to the entrance door. They are either in one or two storeys, and with flat roofs.

450 Section of Vault and Roof

THATÔN OR THAHTÛN.

The earliest really authentic notice we have of these countries is in the 'Mahâwansa.' It is there related that, after the third convocation—B.C. 246—Asoka despatched two missionaries, Sono and Uttaro, to Suvarna-Bhûmi, the Golden Land, to carry the glad tidings of the religion of the Vanquisher.[1] It is now perfectly ascertained that this place was almost certainly the Golden Chersonese of classical geographers, situated on the Sittang river, and now called Thatôn, about

[1] Turnour's 'Mahâwanso,' p. 71. In Burma the two missionaries are known as Thawna and Uttara.

forty miles' travelling distance north from Martaban.[1] Since it ceased to be a place of importance, either by the silting up of the river or the elevation of the land, it is now no longer a port; but there can be little doubt that for some centuries before and after the Christian Era it was the emporium through which a very considerable portion of the trade between China and the western world was carried on. The line of passage was apparently across the Bay of Bengal from the deltas of the Krishnâ and Godâvarî, and it was to this trade route that we probably owe the rise and importance of Amarâvatî till it was perhaps superseded by the direct sea-voyage from Gujarât and the west coast of India in the 6th century. The place was sacked and entirely destroyed, according to Sir A. Phayre, about A.D. 1050, by Anaurahtâ, King of Pegu; but long before that time it had been dwindling, from the growing importance of Pegu or Hansâwatî, which was founded about A.D. 633.[2]

The only description of its ruins is by St. Andrew St. John, in the second volume of the 'Phœnix' above referred to; but they seem even now to be very extensive, in spite of neglect and consequent decay. The walls can still be traced for 7700 ft. in one direction by 4000 ft. in another, enclosing a regular oblong of more than 700 acres. In this enclosure are several old pagodas, some, unfortunately, recently repaired, but all of a form we have not yet met with, though we shall presently when we come to speak of Jâva.

The principal pagoda here, like all the others, is built of hewn laterite. Its base is a square, measuring 104 ft. each way, and 18 ft. high; the second storey is 70 ft. square and 16½ ft. high; the third 48 ft. square and 12 ft. high. On this now stands a circular pagoda, making up the whole height to 85 ft. Mr. St. John fancies this circular part may be much more modern than the rest, but he adds, "the whole face of the pagoda has been carved in patterns; but the most remarkable part is the second storey, to which access is given by four flights of steps, one in the centre of each face. The whole was apparently adorned with sculptures of the most elaborate character."

There seem to be no data to enable us to fix with certainty the date of this or of other similar pagodas in this place, and no photographs to enable us to speak with certainty as to their details, which is to be regretted, as it is just in such an old city as this that we may expect to find those early forms which

[1] R. F. St. John, in the 'Phœnix,' vol. ii. pp. 204, *et seqq.* Sir Arthur Phayre, in 'Journal of the Asiatic Society of Bengal,' vol. xlii. pp. 23, *et seqq.*

[2] In 1116 Buddhavarsha; — Sir A. Phayre, 'History of Burma,' pp. 29, 30; P. W. Schmidt, 'Bach des Râjâwan,' pp. 20 and 101.

may explain so much that is now unintelligible in subsequent examples. Thatôn was coeval with Anurâdhapura in Ceylon, and if examined with care, might do as much for the square form of temple as the island capital may do for the round form. Their greatest interest would, however, arise from the light they might throw on the square temples of Pagân and other Burmese cities, whose origin it has hitherto been impossible to explain. Meanwhile it is a fact worth bearing in mind that we find here square three-storeyed pagodas, which certainly were erected before A.D. 1080, when the city was destroyed, and possibly before the 7th century, when it was practically superseded by the rise of the new city and kingdom of Pegu.

PROME.

If we might trust the Burmese annals, Prome[1] was founded by a King Dûttabaung as his capital as early as the year 101 of Religion, or after the Nirvâna of Buddha.[2] In other words, it seems to be assumed that Buddhist missionaries from the second convocation held under Kâlâsoka, in the previous year, established themselves here, and introduced the new religion into the country[3] The real political capital of the country at that time seems to have been Tagaung, half-way between Ava and Bhâmo, on the Upper Irâwadi.[4] Prome, however, seems to have continued the religious capital till A.D. 107, when the two capitals were amalgamated, under the name of Old Pagân on the northern site, to be again transferred to New Pagân, below Ava, about the year 847.[5] Upper Pagân seems to have been visited by Captain Hannay in A.D. 1835, and by others subsequently, and the remains are described as extensive, but too much ruined and obscured by jungle to admit of scientific investigation.

Many of those at Prome have been photographed by the Government, and other illustrations are given in de Beylié's book, together with the dates to which they are ascribed, those of de Beylié being earlier than others. Three of the pagodas,

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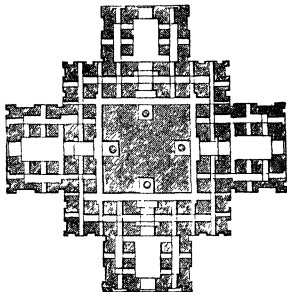
[1] This is the European name, it is called Pyî or Prî in Burmese.—Phayre, *loc cit.* p. 10.

[2] Crawfurd's 'Embassy to Ava,' vol. ii. p. 277. The "year of Religion" or "Buddhavarsha" era, like the Sinhalese era, dates from 543 B.C., but this reckoning appears to be of comparatively late origin, the earlier dates being reckoned from 482 B.C., so that the date here mentioned would belong to 382 B.C.—'Journal of the Royal Asiatic Society,' 1909, pp 326ff. and 344f. The present Burmese Sakkarâj era commences in A.D. 639, on the sun's entrance into Aries.

[3] The holding of this convocation 100 years after the death of Buddha is doubtful, and missionaries are mentioned only in connection with the Council held by Asoka 218 years after the Nirvâna, or in 246 B C

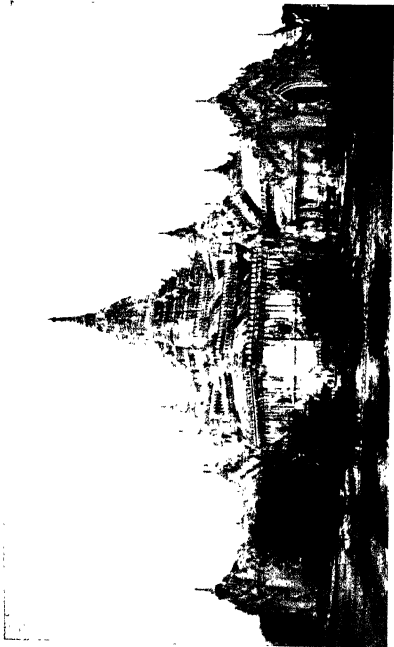
[4] Yule, 'Mission to Ava,' p. 30.

[5] *Loc cit.* p. 32.

Internally, the building is extremely solid, being intersected only by two narrow parallel corridors; but in rear of each projecting transept is a niche artificially lighted from above, in which stands a statue of Buddha more than 30 ft. in height. This is the arrangement we find in the Chaumukh temple at Pâlitânâ and at Rânpur (Woodcut No. 288), both Jaina temples of the 15th and 17th centuries, and which it is consequently rather surprising to find here as early as the 11th century (A.D. 1066); but the form and the whole of the arrangement

451 Plan of Ânanda Temple. (From Yule.) Scale 100 ft to 1 in.

of these temples are so unlike what we find elsewhere that we must be prepared for any amount of anomalies.

The plan of the Dhammayangyî built at Pagân by Narathû in 1160 A.D. is almost identical with the Ânanda, but slightly larger, measuring 292 ft. across each way. With the exception of a deep recess facing the entrance in which the statue of Buddha is placed, the inner corridor has been bricked up. The other three statues are brought forward into the vestibules of the other three transepts. Great similarities exist also in the design, there being two ranges of windows on the ground storey, one above the other, as in the Ânanda. The roof consists of five storeys set back one behind the other, but being all of the same height are very monotonous in effect, and are very inferior to the Ânanda roof, where the three upper storeys of

PLATE XII

The Ananda Temple, Pagan

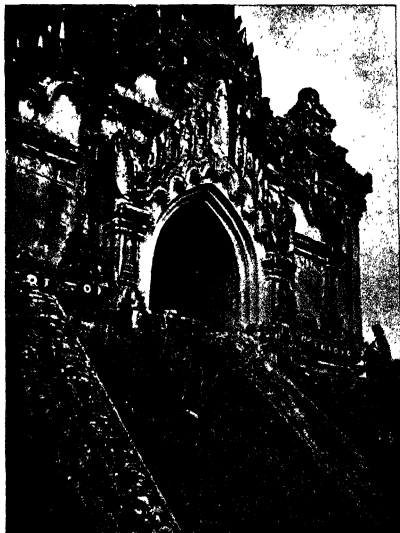
[*To face page* 361, Vol. II.

less height give scale to the two lower ones; only a portion of the sikhara remains.

Next in importance to the Ânanda is the Thatpyinnyu, "the Omniscient," erected about the year 1144 by Alaungsîthû,[1] the grandson of Anaurahtâ. It is very similar to the Ânanda in dimensions and plan, except that it has only one great vestibule instead of four, and only one corridor on the ground storey, the centre portion being solid brickwork. The height of the temple is 201 ft, the highest in Pagân. The additional height in this temple, as also in that of the Gaudaupalin and Tsûlâmani (the Sembyo Koo of Yule) temples, both built by Narapatisîthû in 1186 and 1196 respectively, arises from an important change in the design. The third storey is raised to a height almost equal to that of the ground storey, and in the Thatpyinnyu temple, as shown in the section (Woodcut No 453), contains a central cell and a corridor round. To this upper storey there are porches on each side, and on the entrance front a vestibule as well. The access by flights of steps to this is shown in the section taken from Yule, and horizontal terraces exist in place of the ogee roofs of the Ânanda and Dhammayangyî temples. A similar access by external flights of steps opposite the porch existed on one of the sides of the Tsûlâmani, but not in the illustration (Plate XLII.), where the ramps have more the appearance of flying buttresses. This view suggests in its effect a resemblance to the portal of a French cathedral, and it gives some idea of the rich decoration employed. The three planes, or orders, as they are technically called, of the pointed arch recall the European subordination of arches, but the complicated assemblage of arched forms above in the gable end, all built in brick covered with stucco, show how this material lends itself to

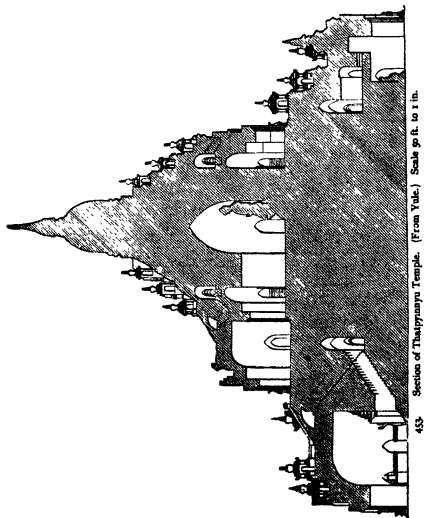
452 Plan of Thatpyinnyu. (From Yule.) Scale 100 ft. to 1 in

[1] Alaungsîthû, or Alûngtsîthû, reigned from 1085 till 1160. He restored Letyâmengnân to the throne of Arakan and caused the temple of Bodh-Gayâ to be restored in 1105.—*Ante*, vol. i. p. 78.

PLATE XLII.

Upper Porch of Tsulamani Temple Pagan

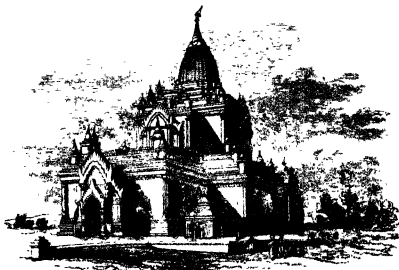
Reproduced from a photograph taken for the Archæological Survey of Burma

[*To face page* 362, Vol II

decoration of the most debased character. The decoration of the pilasters of the ground storey and the frieze which reigns throughout the same are repetitions of the ornament of the Nan Payâ and Kyaukku temples already described. The general

453. Section of Thatpyinnyu Temple. (From Yule.) Scale 50 ft. to 1 in.

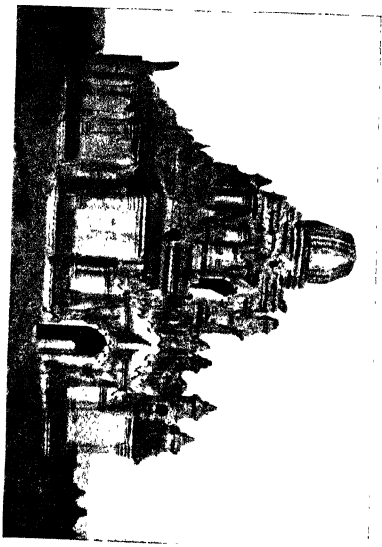
appearance of these temples will be understood from the annexed view (Woodcut No. 454) of the Gaudaupalin and their general arrangement from the section of the Thatpyinnyu[1] temple

[1] In Pali Thatpyinnyu is Sabbannû.

(Woodcut No. 453). A design with slight modifications is shown in Plate XLIII., representing the Thitsawada temple in Pwazaw (1080). Here the plan is of smaller dimensions, but great height is obtained by grouping the features closer together; without looking too close at the detail, it is singular how close a resemblance these two views bear to a Spanish or Italian church of the early Renaissance period. There is one other temple which should be mentioned here, viz., the **Mahâbaudi**, built by Nandaungmya Min in 1198 A.D. in imitation of the

454. View of the Temple of Gaudaupalin (From Yule.)

Bodh-Gayâ temple in Bengal (*ante*, vol. i Woodcut No. 19). The temple is square, having a lofty ground storey, with two or three ranges of windows or niches; in the centre, but set back to leave a terrace round, is a lofty pyramidal tower in seven storeys, bearing a close resemblance to those of the Bodh-Gayâ, but with small dormer windows in the centre of each side; the tower is crowned with the usual finial and Htî. It is the only example of its kind in Burma, and does not seem to have any influence on subsequent examples.

The first thing that strikes the enquirer on examining these temples is their remarkable dissimilarity with anything on the continent of India. They are not stûpas in any sense of the term, nor are they vihâras. The one building we have hitherto met with which they in any way resemble is the seven-storeyed Prâsâda at Polonnaruwa (Woodcut No. 137), which, no doubt, belongs to the same class. It was thought that the square

PLATE XLIII

Thitsawada Temple Pagan

[To face page 364, Vol. II.

pagodas at Thatôn, when properly examined, may contain the explanation we are searching for. They evidently were not alone, and many other examples may still be found when looked for. On the whole, however, I am inclined to believe, improbable as it may at first sight appear, that their real synonyms are to be found in Babylonia, not in India. The Birs Nimrûd was, like them, a seven-storeyed temple, with external stairs, leading to a crowning cell or sanctuary. Of course, during the seventeen centuries which elapsed between the erection of the two buildings, considerable changes have taken place. The lowest stairs in Burma have become internal; in Babylonia they were apparently external. At the head of the third flight at the Birs, Sir Henry Rawlinson found the remains of three recesses. At Pagân these had been pushed into the centre of the third storey. The external flights were continued on the upper three storeys at both places; but in Babylonia they lead to what seems to have been the real sanctuary, in Burma to a simulated one only, but of a form which, in India, always contained a cell and an image of the deity to whom the temple was dedicated.

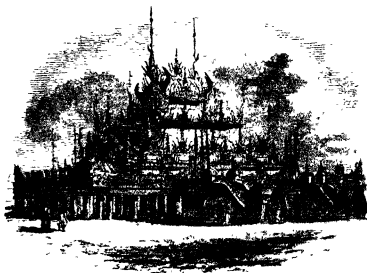
It may be asked, How is it possible that a Babylonian form should reach Burma without leaving traces of its passage through India? It is hardly a sufficient answer to say it must have come *viâ* Tibet and Central Asia; because, in the present state of our knowledge, we do not know of such a route being used. It is a more probable explanation to say that such monuments may have existed in the great Gangetic cities, but, like these Burmese examples, in brick and plaster; and have perished, as they would be sure to do in that climate, and where hostile races succeeded the Buddhists. But, however it may be eventually accounted for, it hardly appears to me doubtful that these Burmese seven-storeyed temples are the lineal descendants of the Babylonian examples, and that we shall some day be able to supply the gaps which exist in their genealogy.

Meanwhile one thing must be borne in mind. The earliest capital of the Burmese was Tagaung in the north, and their real affinities are with the north. They got their religion by the western route from Bengal, but it was engrafted on a stem of which we know very little, and all whose affinities have yet got to be traced to their source.

MONASTERIES.

As Burma is a country in which the monastic system of Buddhism flourishes at the present day to the fullest extent, if we had more information regarding its monasteries, or *kyaungs* as they are called, it might enable us to understand the

arrangement of the older ones. The travellers who have visited the country have been silent on the subject, principally because the monasteries are, in almost all instances, less magnificent than the pagodas to which they are attached, and are, with scarcely an exception, built of wood—a practice destructive of their architectural character, and also depriving them wholly of that monumental appearance of stability which is so essential to true architectural expression.

This peculiarity is not confined to the monasteries; all residences, from that of the poorest peasant to the palace of the king, having been constructed from time immemorial of this perishable material. The custom has now passed into a law,

455. Burmese Kyaung (From Col. Symes' 'Embassy to Ava.')

that no one shall have the power of erecting buildings of stone or brick, except it be the king himself, or unless the edifices be of a purely religious character. Even this exception is not always taken advantage of, for the king's palace itself is as essentially a wooden erection as the dwelling of any of his subjects It is, however, not the less magnificent on this account —rather, perhaps, more so—immense sums being spent on the most elaborate carvings, and the whole being lacquered, painted, and gilt, to an extent of which we have no conception in our more sober clime.

The general appearance of the façade may be realised from the annexed view (Woodcut No 456); but its real magnificence

consists in the profusion of gilding and carving with which every part is covered, and to which it is impossible to do justice on so small a scale.

The same profuse decorations are bestowed upon the monasteries, one of which is represented in the annexed woodcut (No. 455), showing a building in which all the defects arising from the use of so easily carved a material are carried to excess.

456. Façade of the King's Palace, Burma. (From a Sketch by Col. Yule.)

If the colouring and gilding could be added, it would represent a building such as the West never saw, and, let us hope, never will see; for, however dazzling its splendour, such barbaric magnificence is worthy only of a half-civilised race.

The naked form of these monasteries — if the expression may be used—will be understood from the following woodcut (No. 457) of one erected at Mandalay. It is apparently five storeys in height, but as a matter of fact only one storey is occupied, the first, or "piano nobile" as we would call it. The reason for this being that the Pôngyi or priest would refuse to reside in a building where any one's feet were above his head. The first storey of a Kyaung, and this applies to the example at Mandalay, is always raised about 8 to 10 ft. above the ground, being carried on great timber posts. It is surrounded by a balcony on three sides, access to which is obtained by flights of steps enclosed between balustrades with a peculiar

457. Monastery at Mandalay (From a Photograph.)

curved termination in front, shown in the woodcut (No. 455). The steps, the walls carrying them and the balustrades are all in brick, whilst the rest of the structure is entirely in timber. On the eastern side is a shrine, in which is a statue of Gaudama, above which is the Pyâtthat, a lofty structure with three, five or seven roofs according to the importance of the Kyaung; thus in the Royal monasteries and the King's Palace there are seven roofs, as in Woodcut No. 456. The monastery at Mandalay (Woodcut No. 457) was not completed when the photograph was taken, but not being masked by the elaborate carving as shown in Woodcut No. 455, the scheme of its design is easier to read. There are four storeys of roofs, the upper one covers a lantern only; the roof below covers the

central hall which is enclosed with double aisles all round covered over by the two other roofs. Virtually there is only one room in a Burmese Kyaung, at the east end; and next to the Pyâtthat is the Pôngyi's quarter, where he receives visitors, teaches in the school and sleeps, at the west end are the students' quarters and the store-rooms, and the school-room, if it may be so termed, is in the central hall.[1]

These many-storeyed kyaungs, with the tall seven-storeyed spires (shown in Woodcuts Nos. 447 and 455), bring us back to the many-storeyed temples in Nepâl, which are in all essential respects so nearly identical, that it can hardly be doubted they had a common origin. We are not yet in a position to point out the connecting links which will fuse the detached fragments of this style into a homogeneous whole, but it is probably in China that they must be looked for, only we know so little of the architectural history of the western portion of that great country, that we must wait for further information before even venturing on this subject

The fact that all the buildings of Burma are of wood, except the pagodas, may also explain how it is that India possesses no architectural remains anterior to the age of Asoka. Except the comparatively few masonry pagodas, none of which existed prior to his era, there is nothing in Burma that a conflagration of a few hours would not destroy, or the desertion of a few years entirely obliterate. That the same was the practice of India is almost certain, from the essentially wooden forms still found prevailing in all the earlier cave temples; and, if so, this fully accounts for the disappearance of all earlier monuments.

We know that wooden architecture was the characteristic of Media, where all the constructive parts were formed in this perishable material; and from the Bible we learn that Solomon's edifices were chiefly so constructed. Persepolis presents us with the earliest instance remaining in Asia of this wooden architecture being petrified, as it were — apparently in consequence of the intercourse its builders maintained with Egypt and with Greece.

In Burma these wooden types still exist in more completeness than, perhaps, in any other country. Even if the student is not prepared to admit the direct ethnographic connection between the buildings of Burma and Babylon, he will at any rate best learn in this country to appreciate much in ancient architecture, which without such a living illustration, it is hard to understand. Solomon's House of the Forest of Lebanon

[1] Yule's 'Mission to Ava,' pp. 354-355 — Phayre in 'Jour. Asiat. Soc. Bengal,' vol. xxix. pp. 346ff.

is, with mere difference of detail, reproduced at Ava or Amarapura; and the palaces of Persepolis are rendered infinitely more intelligible by the study of these edifices. Burma is almost equally important in enabling us to understand what an active, prosperous Buddhist community may have been in India at a time when that religion flourished there;[1] and altogether, if means were available for its full elucidation, it would form one of the most interesting chapters in the History of Architecture in Asia.

[1] For a succinct account of the history of Burma to 1837, the reader may consult Sir Arthur P. Phayre's 'History of Burma including Burma proper, Pegu Taungu, Tenasserim, and Arakan.'

CHAPTER II.

CAMBODIA.

CONTENTS.

Introductory—The various classes of temple and their disposition—Temples of Angkor Vât, Angkor Thom, Beng Méaleâ, Ta Prohm, Banteai Kedei, Prah-khan, etc.—Palaces and Civil Architecture.

The King Builders.[1]

	Approximate Dates		Approximate Dates.
Jayavarman II.	A. D. 802	Jayavarman V.	A. D. 968
Jayavarman III.	,, 869	Suryavarman I.	,, 1002
Indravarman	,, 877	Udayâdityavarman	,, 1049
Yasovarman	,, 889	Harshavarman III.	(?) ,, 1070
Harshavarman I.	(?) ,, 910	Jayavarman VI.	(?) ,, 1090
Isânavarman	(?) ,, 918	Dharanindravarman I	(?) ,, 1108
Jayavarman IV	,, 928	Sûryavarman II.	,, 1112
Harshavarman II	,, 942	Dharanindravarman II	(?) ,, 1152
Râjendravarman	,, 944	Jayavarman VII.	1162 1201

SINCE the exhumation of the buried cities of Assyria by Mons. Botta and Mr. Layard nothing has occurred so startling, or which has thrown so much light on Eastern art, as the discovery of the ruined cities of Cambodia. Historically, they are infinitely less important to us than the ruins of Nimrûd and Nineveh; but, in an architectural point of view, they are more astonishing; and, for the elucidation of certain Indian problems, it seems impossible to overrate their importance.

The first European who visited these ruins in modern times was M. Mouhot, a French naturalist, who devoted the last four years of his life (1858-1861) to the exploration of the valleys of the Me-kong and Me-nam rivers. Though the primary object of his travels was to investigate the natural productions of the country, he seems to have been so struck with the ruins of Angkor Vât that he not only sketched and made plans of them, but wrote descriptions of all the principal buildings. Unfortunately for science and art he never returned to Europe, being struck down by fever while prosecuting his researches in the northern part of the country; and, though his notes have been published both in this country[2] and in France, they were not

[1] Aymonier, 'Le Cambodge,' tome iii. p. 529

[2] 'Travels in Indo-China, Cambodia, and Laos,' by Henri Mouhot. 2 vols. 8vo. Murray, 1864.

prepared for publication by himself, and want the explanatory touches which only an author can give to his own work. Though his melancholy death prevented M. Mouhot from obtaining all the credit he was entitled to for his discovery, it has borne rich fruit as far as the public are concerned.

The next person who visited these ruins was the very learned Dr. Adolph Bastian;[1] who wrote a most recondite but very unsatisfactory work on the Indo-Chinese nations, in five volumes.

The next visit was paid by Mr. J. Thomson, a professional photographer at Singapore, who at considerable expense and risk carried his photographic apparatus to the spot, and brought away a plan of the great temple at Angkor Vât, with some thirty photographs of it, besides views of other places in the neighbourhood

Since that time the French have sent a succession of well-equipped expeditions to the place; the first, under Captain Doudart de Lagrée in 1866 and a second in 1873. His unfortunate death on the frontiers of China prevented his ever working out his results to the extent he no doubt would have done had he lived to return home. They were, however, published as he left them by Lieutenant T Garnier, the second in command, with notes and additions of his own[2]

As they, however, could not complete the investigation, a third expedition was fitted out under Captain L. Delaporte, who had taken part in the previous expeditions He returned to France in 1874, bringing with him not only detailed plans of some of the temples, but copies of numerous inscriptions and a large collection of antiquities and casts. These were at first located in the Chateau of Compiègne, but were afterwards removed to Paris and arranged in the Trocadero Museum.

Captain Delaporte's work[3] was published in 1880. He was followed by other travellers who shortly after their return brought out the results of their investigations, M. T. Moura,[4] A Tissandier,[5] Fournereau,[6] Captain E. Lunet de Lajonquière,[7]

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[1] 'Die Völker der Oestlichen Asien,' von Dr A Bastian Leipzig, 1866. He also wrote an account of the ruins in the 'Journal of the Royal Geographical Society' (vol. xxxv.), and four papers in the 'Ausland' (Nos. 47-50)

[2] 'Voyage d'Exploration en Indo-Chine,' 2 vols. quarto and folio Atlas of plates. Paris, 1873; also 'Explorations et Missions. Extraits de ses Manuscripts,' par M. A. B Villemereuil Paris 1883

[3] 'Voyage au Cambodge, l'Architecture khmere.' 4to. 1880.

[4] 'Le Royaume de Cambodge' 2 vols. 8vo. 1883.

[5] 'Cambodge et Java: Ruines khmères et javanaises, 1893-94.' 4to. 1896.

[6] 'Les Ruines d'Angkor.' 4to. 1900.

[7] 'Atlas Archéologique de l'Indo-Chine: Monuments du Champa et du Cambodge,' fol. 1901; 'Inventaire archéologique et descriptif des Monuments du Cambodge.' 2 vols. Imp. 8vo. 1902-1907.

and E. Aymonier,[1] all of whom were sent out by the Minister of Public Instruction and under the direction of the École Français de l'Extrême Orient. The latest writer on the subject is General L. de Beylié,[2] whose work includes a description with illustrations of the monuments of India, Burma, Cambodia, Siam, Jâva, and Ceylon.

In addition to these sources of information there is a most interesting account, written by a Chinese traveller, who spent two years in the country when the kingdom was in its most flourishing state between the years 1295-97. He was a Buddhist, and, like his predecessors in India, Fah Hian and Hiuen Tsiang, sees things a little too much through Buddhist spectacles; but, with this slight defect, nothing can be more graphic than his account of the country and the people.[3]

One of the earliest traditions is that first put forward by Dr. Bastian[4] relative to the migration of an Indian prince, and this is repeated by Tissandier,[5] who states that in 443 B.C. Prea-thong, a Hindu prince, son of the King of Indraprastha, emigrated with a large number of his followers and settled at Choukan (north of Angkor). The new emigrants introduced the Brâhman rites which were engrafted on those of the Serpent worshippers of the country. Although at first they settled down amicably with the original inhabitants, in course of time troubles set in and the Indians, having vanquished their opponents, became masters of the country In 125 B.C the Chinese are said to have conquered the Cambodians and forced them to pay tribute. There is also a record that in the first centuries of our era emigrants from Madras made their way into Cambodia introducing the Brâhman faith, the Sanskrit alphabet, and Indian rites and customs[6] The Khmer and Sanskrit epigraphic texts give details of a dynasty of seven kings who reigned from 435-680 A.D., among whom a certain Bhavavarman seems to have been a great conqueror, the last

[1] 'Le Cambodge.' 3 vols. Imp 8vo 1901 1907. The Sanskrit inscriptions were translated and commented by M. M. A Barth and Abel Bergaigne, with atlas of phototypes of the estampages. Paris 1885 and 1893.

[2] 'L'Architecture Hindoue en Extrême Orient.' 1907.

[3] The work is translated *in extenso* in Abel Remusat's 'Nouveaux Melanges Asiatiques,' vol. i. pp. 78 *et seqq*.

[4] Bastian, *loc. cit.* vol. i. p. 393.

[5] Tissandier, *loc. cit.* p. 17.

[6] From ancient inscriptions we learn that the Eastern peninsula at an early date included six regions, states or kingdoms:— (1) Yavana-desa in the north-east, extending from the gulf of Tongkin westwards nearly to the 90th meridian, and including much of the Laos districts north of 17° 30'. Its capital was Chudhanagari, now Luang Phrabang on the Me-kong. (2) Champa-desa, corresponding to Annam and extending to about 160 miles westwards of the Me-kong. (3) Sayam-desa in the north-west, including Burma proper and the northern part of modern Siam east of the Salwin, of which Haripunyapura, now Lamphum on the Me-ping, was—if not the capital—one of its notable cities. (4) Kambuja-desa included all Cambodia.

of this dynasty was Jayavarman. From his death to the commencement of the 9th century there are no records, owing probably to internal dissensions, but in 802 A.D.[1] Jayavarman II., who may have been a descendant of the older dynasty, formed a new dynasty of eighteen sovereigns, a list of whom, with the dates of their accessions, are given at the head of this chapter. To this monarch is attributed the foundation of the Cambodian kingdom, whose capital was Angkor Thom, situated in the valley of the Me-kong about 14 miles north of the lake known as Tonlé Sap. Jayavarman II. settled at first at Prah-khan north of Angkor Vât, and in the tenth year of his reign is supposed to have laid the foundations of the great city of Angkor Thom, as also those of the Royal palace in its centre, the pyramid temples of Phimêanakas, the great temple of Bayon and other structures. To him, therefore, according to Aymonier,[2] must be ascribed the inauguration of those colossal constructions which were raised during the four centuries following and which constitute the great Cambodian style. There are some small earlier temples built towards the end of the 6th or the commencement of the 7th centuries, in which the origin of the style may be found, but they are of comparatively small importance. It is, however, interesting to note that according to Aymonier, Jayavarman may have come into the country from Jâva, and therefore brought over some acquaintance with the great temple of Boro-Budur of the 7th or 8th centuries, to which there is a striking resemblance, so much so that some of the sculptures of the latter have been assumed in error to be those of Angkor Vât.

The third king, Indravarman, besides building the temples of Baku and Bakong, completed and consecrated the temple of Bayon in Angkor Thom, the *chef d'œuvre* of Cambodian architecture. The erection of the great capital, on account of its magnitude and the numerous temples and other structures it contained, would seem to have stretched over a long period, as it was not until the reign of Yasovarman, the fourth king, that the official capital was shifted about 900 A.D. from Hariharâlaya, which, since the death of the first king, had hitherto held that position, to Angkor Thom. To Yasovarman is attributed also the temple of Lolei and the pyramid temple of Phimêanakas in the centre of the Palace enclosure. He is said to have been a man of prodigious strength, but in about

Lower Cochin China and Siam as far north as Uttaradih (Lat 17° 39′ N) (5) Ramanya-desa, on the west, comprised Pegu and Tenasserim. And (6) The Malay peninsula was designated Malaya-desa. — Fournereau, 'Le Siam Ancien,' pt. i. pp. 50ff.

[1] The dates are those taken from the Indian Saka, to which is added 78: thus 724 Saka is 802 A.D.

[2] Aymonier, *loc. cit.* tome iii. p. 468.

the nineteenth or twentieth year of his reign was afflicted with leprosy and retired to a forest in the north of the kingdom, leaving two sons to succeed him, the second of whom, Isâna-varman, left Angkor Thom about 926 A.D. and settled at Chok Gargyar (Kohker[1]), which became the capital during his reign and that of his son. The ninth king, Râjendravarman, returned to Angkor Thom in 942, and it was in his reign that Buddhism commenced to be favoured, one of the two great temples built by him, Ta-Prom being Brâhman, and the other, Bântèai Kedei, Buddhist. Under the reign of his successor many other temples were erected, of which the most important is the pyramid temple of Bapuon, immediately south of the Royal Palace in Angkor Thom. The eleventh king, Sûryavarman, reigned forty-eight years, and was a great builder, the temples of Phnom Chisor (Prov. Bâti), Vât Ek near Battambang, Phnom Bâset, Prah Vihear (Prov. Kukhan) and Prah-khan (Kompong Svay), being attributed to him. His successor continued his work and built the temples of Banteai Ta Kean (Prov. Siemreap), Phimai (Prov Korat), Prê Rup, and probably the temple on Mount Bakhêng, south of Angkor Thom. The dates of the accessions of the three following kings are not known for certain, and with the exception of Vât Phu at Pursat, built about 1090-1100, restorations and additions only are recorded during the period of their reigns. We pass on, therefore, to Sûryavarman II., who is said to have extended to its normal condition the empire which had suffered many calamities under his predecessors. He would appear to have been not only a great warrior, but a remarkable scholar and writer of verses, and to him is attributed the erection of the temple of Angkor Vât, the foundation of which is said to have been laid by his predecessor, but which he continued and completed during the forty years of his reign, including the magnificent series of bas-reliefs which are carved on the walls representing battle scenes taken from the Râmâyana. During the reign of the last two sovereigns of the dynasty, commenced the wars with neighbouring nations, and no further temples were built, so that our architectural history is confined to the three and a half centuries which elapsed between 802 and 1152.

It was to these incessant wars that the decadence of Cambodia must be attributed; commencing with the Champâs (Cochin China), continued by the Peguans and subsequently with the Siamese, Cambodia was invaded and devastated, Angkor Thom being taken after a seven months' siege in 1375 and again in 1460, when the capital was changed successively to various other towns, the last settlement being

[1] Lat 13° 15′ N., long. 104° 31′ E

at Phnom Penh[1] on the Me-kong, the present capital of what remains of the great Cambodian kingdom.

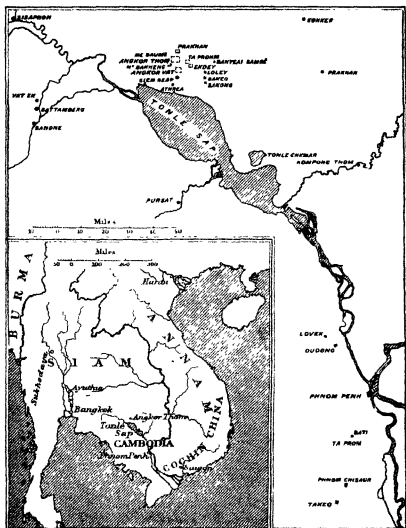
Temples.

Broadly speaking, the temples, the relative position of which is shown in Woodcut No. 458, may be divided into four classes: firstly, those in which the enclosures, generally three in number, are all more or less on the same level, such as in the temples of Ta Prohm, Kedei, and Prê Rup; secondly, the pyramid temples, which consist of a series of narrow terraces rising one above the other as Phimêanakas and Bapuon, thirdly, those in which the two first classes would seem to be combined, where the enclosures, one within the other, are each raised from 15 to 20 ft. above the level of that outside, so as to give the whole a pyramidal form, such as in those of Angkor Vât and Bayon, and fourthly, the smaller temples, consisting of three or five sanctuaries placed side by side, the centre one being the most important, the whole surrounded by a wall or moat The enclosures consist either of a moat within which may have been some kind of timber palisade now gone, or a stone wall 8 to 10 ft high, with cresting at the top In a large number of temples one or more of the enclosures take the form of a gallery or corridor, which is roofed over with horizontal courses of stone corbelled over till they meet at the top. The nature of this construction limits the width of the corridor to 7, or at the utmost 10 ft., so that if a greater width is required, an aisle is provided on one or both sides. An example of this is shown in Woodcut No. 461, a section of the corridor at Angkor Vât. In this case the support on the left consisted of a solid wall, the roof over the aisle being at a lower level than that over the corridor, but there are instances in which this system of construction is employed over the vestibules and halls leading to a sanctuary, in which case the outer supports are walls, the inner ones piers, constituting in plan what might be described as a nave and aisles.

The approaches to the temples acquire considerable importance, not only on account of their great length, but because they consist of causeways raised from 10 to 12 ft. above the ground, necessitated by the fact that from June to October the valley of the Me-kong, where all the more important Cambodian temples are found, is flooded, and the raised causeways form the only means of communication between the towns and temples: the whole valley, in fact, is mapped out with roads arranged at right angles to one another, along which the caravans pass.

In the approaches to the principal temples and the great

[1] Lat. 11° 33′ N., long. 104° 57′ E.

towns, these causeways have led to features which are confined to Cambodia, viz., the cruciform terraces (such as that shown

458. Map showing the position of the principal Temples.

in Woodcut No. 459, in front of the temple of Angkor Vât, and in Woodcut No. 470 in the foreground of the temple of Beng Méaleâ), the bordering of the causeways with steles, lions, and other animals, and, when crossing the moats, to stone bridges the balustrades of which consisted of serpents carried by

giants on sculptured pedestals, the serpent terminating at the entrance end by a lofty Nâga figure 10 to 12 ft. high, with from five to seven heads. A similar feature terminates the balustrades of bridges across rivers or streams, an example of which, the Spean Taon, is shown on Plate XLIV., Fig. 2. In the latter case the bridge is carried on great stone piers corbelled out at the top, the banks being widened out so as to give an equal passage to the torrent as that enjoyed before the bridge was built. Across the moats which surround the outer enclosure of the temples, the bridge is carried on circular or compound piers, sometimes carrying side walls enriched with Nâga figure sculpture.

In front of the temples and also in parts of the enclosure are tanks of water known as *sras*, with stone borders and steps round. These provide for the services of the temple; there are some cases in which these *sras* are of enormous dimensions, forming reservoirs to supply water for agricultural and other purposes.[1]

The principal approach to the temples is, as a rule, from the east, unless, as in the case of Angkor Vât, where there is some special reason for the change, the main road from the capital Angkor Thom being on the west side of the former, which has accordingly a western entrance. The entrance gateways to the several enclosures are called gopuras[2] and are cruciform on plan, owing to projecting wings thrown out on all four sides: the side wings being of greater length than the others, in some cases, as at Angkor Vât, having a second entrance on each side. Over the centre of the gopura is a tower which in the entrance gateway of Angkor Thom is carved on each side with Brahmâ heads. The gopura is repeated for the entrance of each enclosure, always being in the centre of the east and west fronts, but on the north and south fronts nearer to the west end, where the main entrance is on the eastern side, and to the east end if on the western side; the reason being to provide additional space for other structures within the enclosures on the entrance side, the axis of the sanctuary and of the gopura being always the same.

In the pyramidal temples and in those of the third class, where each terrace or enclosure rises from 15 to 20 ft., the staircases are very steep—in some cases the rise of the steps being three times the width of the tread. The steps are enclosed between projecting spurs or ramps of stone, which are richly moulded and carved, and the width of each flight is of less dimension as it rises, so as to give the appearance of greater height. In some of the large temples—in addition to the towers over the central

[1] De Lajonquierè, 'Inventaire archéologique,' tome 1. introd. pp. 43ff.

[2] *Loc. cit.* introd. pp. 30ffg.

Fig 1 Gopura at Prea Khare (Prah-Khan)
(From Tissandier's Cambodge et Java

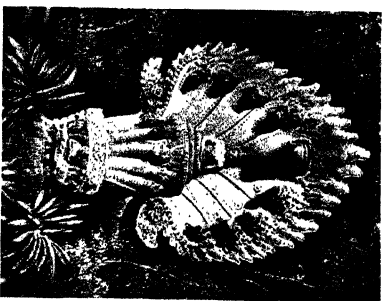



Fig 2 The Spean Taon Naga-Head.
(From Tissandier's Cambodge et Java ")

[To face page 378 Vol II.

PLATE XLV

and side entrances—there are others over the angles of each enclosure; and in the temple of Bayon, including those of the sanctuary and other buildings within the enclosure, there are as many as fifty towers,—that over the sanctuary rising to a height of 130 ft. above the central enclosure or platform, the latter being 34 ft. above the ground outside. The principal characteristic of the design in the Cambodian temples consists in the accumulation of features; thus the sanctuary, for instance, originally a square tower of the same height as width, with a series of five storeys, one above the other, diminishing in size as they rise, and crowned with the lotus flower, has been enriched with one or two slightly projecting bays on each face, in front of which elaborately carved doorways have been added; similar projecting bays and doorways, of less dimensions as they rise, are carried up each storey of the tower. The general effect of this accumulation of features may be judged by Woodcut No. 464, where the two rising roofs of the corridors add to those features above described, and in the view (Plate XLV.) of the gopura *to the sanctuary enclosure of the temple of Prah-khan (Prov.* Kompong Svay). The two upper stages of the tower over the gopura are gone, but on the left hand side there are four repetitions of the serpent gables over the doorways, such as are more clearly shown in Plate XLIV., Fig. 1.

Although to each enclosure there are four gopuras or entrance gateways, those on the north and south are invariably closed with imitation doors in stone. Similar false doorways, sometimes elaborately carved, are found on the three sides of the sanctuary, the east or, in some instances, the west doorway being the only entrance. The sanctuary is always situated on the axis of the principal entrance, and, owing to the projecting bays added to each side, presents a cruciform plan. In general design the sanctuary takes the form of a tower or sikhara, the lower portion rarely higher than the width but crowned with a series of receding stages; the walls are of great thickness, sometimes 5 to 6 ft. deemed necessary to carry the superstructure which was built with horizontal courses of stone or brick, corbelled out internally so as to meet in the centre. No trace of an arch of any description has ever been found in Cambodian architecture; so that corbelling out with horizontal courses of stone was the only expedient employed to roof over their corridors, sanctuaries, or other halls. The widest span never exceeds 10 ft., and to increase the width of a hall or vestibule, often found in front of a sanctuary, aisles are added: this applies to all temple buildings, the roofs of which would seem always to have been of stone. In secular buildings, timber roofs, none of which exist at the present day, were almost certainly

employed, as remains have been found of parallel walls of a much greater width. In the inner enclosure of a temple, on each side of the central axis, and in front of the sanctuary, two other structures are invariably found, which are assumed to have been the treasury for the deposit of the sacred vessels and other properties of the temple and the library for the records; their entrance doors face the opposite direction to those of the sanctuary; they are lighted by rectangular window openings closed with balusters such as shown in Plate XLV.; the sills of the windows of the treasury or library are always about 6 ft. from the ground, and the same is found in other buildings, which are assumed to have been occupied by the women. In some of the temples there are other structures in the rear of the sanctuary,[1] thus at Phnom Chisor (Prov. Bâti)[2] are five buildings of different sizes and similar in general design, all having doorways facing east which are undoubtedly shrines for divinities of the same cult, whether Saiva or Vaishnava. The temple of Phnom Chisor is built on an eminence, and is approached by long causeways with numerous flights of steps, there being in front of the gopura a flight of 392 steps; a second example exists in the Prah Vihear,[3] where the temple is built on a cliff which in Europe would have been selected for a strongly fortified castle

The three largest temples in Cambodia are those of Angkor Vât, Bayon and Beng Méaleâ; of these the first named is the best preserved, though of later date, the other two being built at a period when the architectural style of Cambodia had reached perhaps its highest development

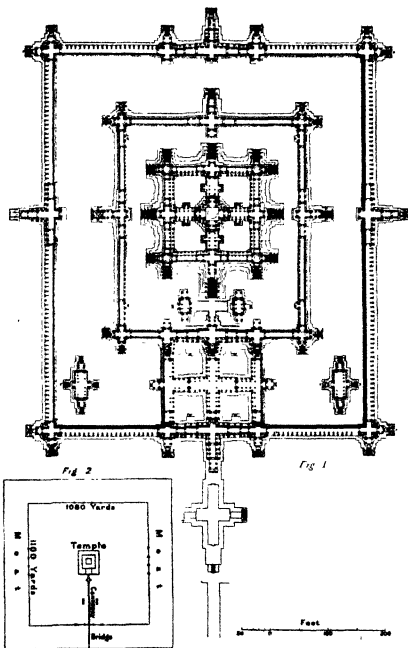
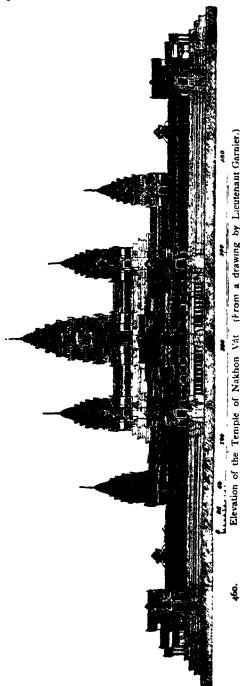
TEMPLE OF ANGKOR VÂT

The temple of Angkor Vât, literally "the temple of the city," is situated about a mile to the southward of the city of Angkor Thom itself, and between it and the lake Tonlé Sap. As will be seen from the small plan (Fig 2, Woodcut No. 459) it is almost an exact square, and measures nearly an English mile each way.[4] The walled enclosure of the temple measures 1080 yds. by 1100, and is surrounded by a moat 216 yds. wide. The moat is crossed on the west by a splendid causeway, carried on piers on either side. This leads to the great gateway five storeys in

[1] These are analogous to the small shrines connected with Hindû temples, as at Kailâs, Elûrâ, at Sinnar, Dhamnâr, etc.

[2] L. de Lajonquière, 'Inventaire archéologique,' tome i. pp. 16-29.

[3] *Loc. cit* tome ii. pp. 173ff.

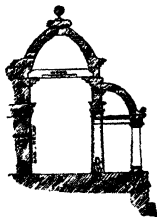
[4] By the treaty of 23rd March 1907, France obtained from Siam the provinces of Battambang, Siemreap and Sisophon. These include the temple of Angkor Vât, and numerous other examples that bear witness to the splendour of the ancient Cambodian civilisation.

459. Plan of the temple of Angkor Vât. Scale 176¼ ft. to 1 in.

460. Elevation of the Temple of Nakhon Vât. (From a drawing by Lieutenant Garnier.)

height, not unlike the gopura of a Dravidian temple, but extended by lateral galleries and towers to a façade more than 600 ft. in extent. Within this a second raised causeway, 370 yds. long, leads to a cruciform platform in front of the temple (shown in Fig. 1, Woodcut No. 459). On either side of this, about halfway down, is a detached temple, which anywhere else would be considered of importance, but here may be passed over.

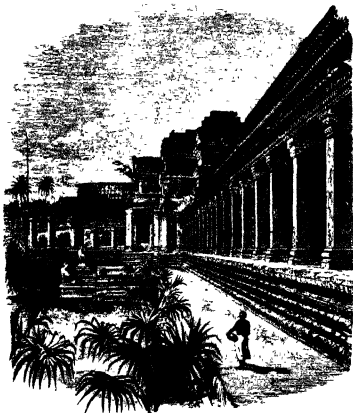
The general plan of the temple will be understood from the woodcut (No. 459). It consists of three enclosures, one within the other, each raised from 15 ft. to 20 ft. above the level of that outside it, so as to give the whole a pyramidal form. The outer enclosure measures 590 ft. by 700 ft., and covers, therefore, about 413,000 sq. ft. The great temple at Karnak (Thebes) covers 430,000 sq. ft. There are three portals, adorned with towers on each face, and on either side of these are open galleries or verandahs, which, with their bas-reliefs, are probably the most remarkable features of this temple. Their external

appearance will be understood from the Woodcut No. 462; that of the interior from Woodcut No. 463; though these illustrations are on too small a scale to do justice to their magnificence.

Its appearance in elevation may be gathered from Woodcut No. 460, which shows it to be a pyramid more than 600 ft. in breadth across its shortest width north and south, and rising to 180 ft. at the summit of the central tower. It is, consequently, both larger and higher than Boro-Budur, and notwithstanding the extraordinary elaboration of that temple it is probably surpassed by this one, both in the extent of its ornamentation as well as in the delicacy of its carvings. There may have been as much, or nearly as much, labour bestowed on the colonnades at Râmesvaram as on this temple; but otherwise the Indian example cannot compare with either of these two. It has literally no outline and practically no design; while both Angkor Vât and Boro-Budur are as remarkable for their architectural designs as for their sculptural decorations.

The mechanical arrangements of the galleries or colonnades above referred to are as perfect as their artistic design. These will be understood from the diagram, Woodcut No. 461. On one side is a solid wall of the most exquisite masonry, supporting the inner terrace of the temple. It is built of large stones without cement, and so beautifully fitted that it is difficult to detect the joints between two stones. In front of this are two rows of square piers, with capitals also similar to the classical examples, but more ornamented. These piers have no bases, but on each face is carved a figure of a devotee or worshipper, surmounted by a canopy of incised ornament, which is also carried along the edge of the shafts. The piers carry an architrave and a deep frieze, which, in the inner part of the temple, is ornamented with bas-reliefs of the most elaborate character, and above this is a cornice of very classical outline. Above the cornices is a pointed arch, not formed with voussoirs, but of stones projecting one beyond the other, as with the old Pelasgi and with the Hindûs to the present day. This is quite plain, and was probably originally intended to be hidden by a wooden ceiling, as indicated in the diagram; at least Mr. Thomson discovered the mortises which were

461. Diagram Section of Corridor, Angkor Vât.

intended to secure some such adornment, and in one place the remains of a teakwood ceiling beautifully and elaborately carved.

Outside this gallery, as shown in the Woodcuts Nos. 461, 462, is a second, supported by shorter piers, with both base and capital. This outer range supports what may be called a transverse tie-beam, one end of which is tenoned into the

462. View of Exterior of Angkor Vât (From a Photograph by Mr. J. Thomson.)

inner piers just below the capital. So beautifully, however, is this fitted, that M. Mouhot asserts the inner piers are monoliths, and, like the other joints of the masonry, the junction cannot be detected even in the photograph unless pointed out. The beauty of this arrangement will at once strike any one who knows how difficult it is to keep the sun out and let in the light and air, so indispensable in that climate. The British have tried

to effect it in India for 100 years, but never hit on anything either so artistic or convenient as this. It is, in fact, the solution of a problem over which we might have puzzled for centuries, but which the Cambodians resolved instinctively. The exterior cornice here, as throughout the temple, is composed of infinite repetitions of the seven-headed snake.

463. View of Interior of Corridor, Angkor Vât. (From a Photograph by Mr. J. Thomson.)

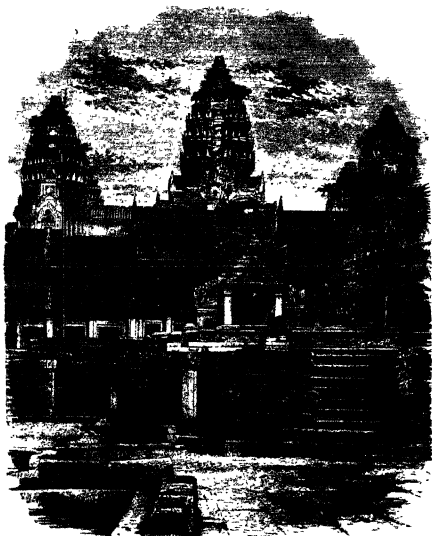
The most wonderful parts, however, of these colonnades of Angkor Vât are the sculptures that adorn their walls. These are distributed in eight compartments, one on each side of the four central groups of entrances, measuring each from 250 ft. to 300 ft. in length, with a height of about 6½ ft. Their aggregate length is thus at least 2000 ft., and assuming the parts photographed to be a fair average, the number of men and

animals represented extends from 18,000 to 20,000. The relief is so low that in the photograph it looks at first sight as if incised —*intagliato*—like the Egyptian sculptures; but this is not the case. Generally speaking, these reliefs represent battle-scenes of the most animated description, taken from the Râmâyana or Mahâbhârata, which the immigrants either brought with them, or, as the Siamese annals say, received from India in the 4th or 5th century; these, Pathammasurivong, the founder of the city, caused to be translated into Cambodian, with considerable variations, and here they are sculptured almost *in extenso*.[1]

One bas-relief, however, is occupied by a different subject—popularly supposed to represent heaven, earth, and hell. Above is a procession so closely resembling those in Egyptian temples as to be startling. The king is borne in a palanquin very like those seen in the sculptures on the banks of the Nile, and accompanied by standards and emblems which go far to complete the illusion. In the middle row sits a judge, with a numerous body of assessors, and the condemned are thrown down to a lower region, where they are represented as tortured in all the modes which Eastern ingenuity has devised One subject alone can be called mythological, and it wears an old familiar face, it represents the second Avatâr of Vishnu, the world-supporting tortoise, and the churning of the ocean with the great snake Nâga. No legend in Hindû mythology could be more appropriate for a snake-temple; but, notwithstanding this, it is out of place, and I cannot help fancying that it was his choice of this subject that gave rise to the tradition that the king was afflicted with leprosy because he had deserted the faith of his forefathers. This relief is evidently the last attempted, and still remains unfinished.

The only other temples that I am aware of where sculpture is used in anything like the same profusion are those at Boro-Budur in Jâva and that at Halebîd, described above (vol. i. p. 446). In the Indian example, however, the principles on which it is employed are diametrically opposed to those in vogue in Cambodia. There all the sculptures are in high relief, many of the figures standing free, and all are essential parts of the architecture—are, in fact, the architecture itself. Here, however, the two arts are kept quite distinct and independent, each mutually aiding the other, but each perfect by itself, and separate in its aim. The Gothic architects attempted to incorporate their sculpture with the architecture in the same manner as the Indian architects. The Greeks, on the contrary,

[1] Bastian, *loc. cit.* vol. i. p. 402.

kept them distinct; they provided a plain wall outside the cella of the temple for their paintings and sculpture, and protected

464. General View of Temple of Angkor Vât (From a Photograph by Mr J Thomson)

it by screens of columns precisely as the Cambodians did; and it is difficult to say which was the best principle. A critic imbued with the feelings of mediæval art would side with the Indians;

but if the Greeks were correct in their principle, so certainly were the Cambodians.

Leaving these outer peristyles for the present, and entering by the west door, we found ourselves in an ante-naos measuring 180 ft. by 150 ft., supported by more than 100 piers, and lighted by four small courts open to the sky above. The whole of this part is arranged most artistically, so as to obtain the most varied and picturesque effects, and is as well worthy of study as any part of the temple. Beyond this, on either hand, is a detached temple, similar in plan to those that stand on either side of the causeway (Fig. 2, Woodcut No. 459), half-way between the entrance and the temple.

465. Pier of Porch, Angkor Vât (From a Photograph by Mr. J. Thomson)

Ascending from this we enter the middle court, in the centre of which stands what may be considered as the temple itself. It measures 200 ft. by 213 ft, and is crowned by five towers or spires, one on each angle, and one, taller than the others, in the centre, rising to a height of 180 ft. The central tower has four cells, one facing the central hall from each side. The general appearance of these towers may be gathered from the elevation (Woodcut No. 460), and from Woodcut No. 464. They are very Indian in character and outline, but, when looked closely into, are unlike anything known in that country. The building which resembles the inner temple most, so far as at present known, is that at Rânpur (Woodcut No. 288). Its dimensions are nearly the same, 200 ft. by 225 ft.; like this, it has five spires similarly disposed, and four open courts; and at Rânpur, as here, there are a certain number of snake-figures, which might suggest a connection between the two. But there the similarity ceases. The extraordinary amount of richness and exuberance of detail in the Cambodian temple far surpasses that of the Indian example; and the courts at Angkor Vât are not courts but water-tanks How far the lower courts were also capable of being flooded is not clear, nor whether the whole

area, 1100 yds. square, in which the temple stands, was not also capable of being turned into a lake.[1] If it were, it is difficult to conceive a more fairy-like scene than this temple would have presented, rising from the lake which reflected its forms in the calm stillness of a tropical sunset.

One of the most curious circumstances connected with the architecture of this temple is, that all the piers are as essentially of the Roman Doric order, as those of Kashmir are of the Grecian Doric. Even if this is disputed, one thing at least is certain, that no such piers occur anywhere in India. At Angkor Vàt there is not a single bracket-capital nor an Indian base,[2] and although there are intersecting vaults and ingenious roofing contrivances of all sorts, there is no dome, and no hint that the architects were aware of the existence of such a form. On the contrary, take such a pier as that shown in Woodcut No. 465: the proportion of diameter to height; the proportion between the upper and lower

466. Lower part of pier (From a Photograph by Mr. J. Thomson.)

[1] Mr. Thomson was informed that during the rains the whole was flooded, in which case the temple could only be reached in boats.

[2] Outside the temple the sides of the causeways are in places supported on dwarf columns of circular form. They seem to simulate a bundle of eight reeds, and have tall capitals.

diameter; the capital with its abacus; the base with its plinth; the architrave, etc., are so like the Roman order that it is difficult to conceive the likeness being accidental.

But whoever gave the design for these piers—and, according to M. Mouhot, there are 1532 of them in this single building—we have abundant evidence to show that the people for whom it was erected were of Turanian blood. Without insisting on other facts, there are in every part of the building groups of female figures in alto-rilievo. They are sometimes in niches or in pairs, as in the Woodcut No. 466, attached to pilasters, or in groups of four or more. There are a hundred or more in various parts of the building, and all have the thick lips and the flat noses of true Tartars, their eyes forming an angle with one another like those of the Egyptians, or any other of the true building-races of the world. Unfortunately, no statues of men are so attached, though there are several free-standing figures which tell the same tale. The bas-reliefs do not help in the enquiry, as the artist has taken pains to distinguish carefully the ethnographic peculiarities of all the nations represented, and, till the inscriptions are read, and we know who are intended for Indians or who for Chinese or Cambodians, we cannot use the evidence they supply.

It is a well-known fact that, wherever Serpent-worship prevailed in any part of the world, it was the custom to devote the most beautiful young girls to the service of the temple, and this may account for the numerous female statues. Though the god is gone, and the Buddhists have taken possession of the temple, every angle of every roof is adorned with an image of the seven-headed snake, and there are hundreds of them; every cornice is composed of snakes' heads, every convolution of the roofs, and there are thousands, terminates in a five or seven-headed snake. The balustrades are snakes, and the ridge of every roof was apparently adorned with gilt dragons. These being in metal, have disappeared, but the holes into which they were fixed can still be seen on every ridge.

This temple, now in French hands, has been taken possession of by Siamese bonzes, who have dedicated it to the worship of Buddha. They have introduced images of him into the sanctuaries and other places, and, with the usual incuriousness of people of their class, assert that it was always so. If, however, there is one thing more certain than another in this history, it is that Angkor Vât was not originally erected by Buddhists or for Buddhist purposes. In the first place, there is no sign of a dâgaba or of a vihâra, or of a chaitya hall in the whole building, nor anything that can be called a reminiscence of any feature of Buddhist architecture. More than this, there is no trace

of Buddha, of any scene from his life, or from the jâtakas to be found among the sculptures. In former days it might be excusable to doubt this; but it is not so now that any man may make himself familiar with the sculptures at Bharaut, at Sânchi, or Amarâvatî, or with those from the Gandhâra monasteries or at Boro-Budur. It is just as easy to recognise a Buddhist scene or legend in these representations, as it is to identify a Christian scene in the Arena chapel at Padua, or at Monreale near Palermo. What may hereafter turn up I do not know, but meanwhile I most unhesitatingly assert that there is not a trace of Buddhism in any of the bas-reliefs yet brought to light from Angkor Vât, nor an integral statue of Buddha or of any Buddhist saint about the place.

I am, of course, aware that there are traditions of Asoka having sent missionaries there, and of Buddhaghosha having visited the place,[1] but they are the merest of traditions, imported apparently from Siam, and resting on no authenticated basis. Had Buddhists ever come here *en masse*, or the country ever been converted to that religion, it seems impossible the fact should not be observable in the buildings. But there seems no trace of it there. There is no Eastern country, in fact, where that religion seems to have been so little known in ancient times. The testimony of the Chinese traveller, who visited the country in A.D. 1295,[2] is sufficient to prove it did exist in his time; but, like his predecessors Fah Hian and Hiuen Tsiang, he saw his own faith everywhere, and, with true Chinese superciliousness, saw no other religion anywhere.

So far as can be at present ascertained, it seems as if the migrations of the Indians to Java and to Cambodia took place about the same time and from the same quarter; but with this remarkable difference: they went *en masse* to Jâva, and found a *tabula rasa*—a people, it may be, numerous, but without arts or religion, and they implanted there their own with very slight modifications. In Cambodia the country must have been more civilised, and had a religion, if not an art. The Indians seem slowly, and only to a limited extent, to have been able to modify their religion towards Hinduism, probably because it was identical, or at least sympathetic; but they certainly endowed the Cambodians with an art which we have no reason to suppose they before possessed. Now that we know to what an extent classical art prevailed in

[1] Garnier, *loc. cit.* vol. i. p. 120. Bastian, vol. i. pp. 400, 415, 438, etc.

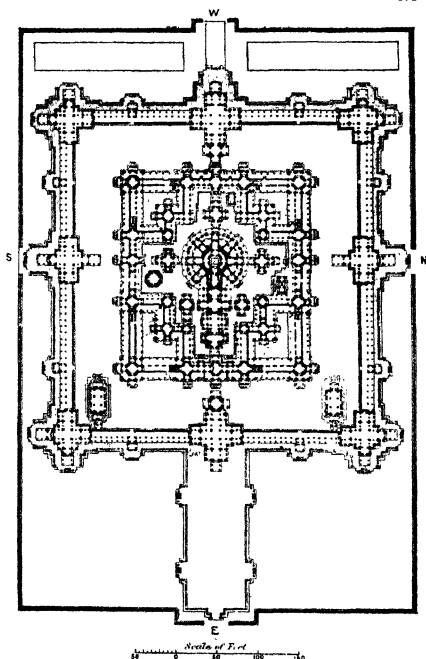
[2] In the extracts from the 'Chinese Annals,' translated by Abel Remusat, in the first volume of the 'Nouveaux Mélanges Asiatiques,' he finds the earliest mention of the Cambodian kingdom in A.D. 616. From that period the accounts are tolerably consecutive to A.D. 1295, but before that nothing.

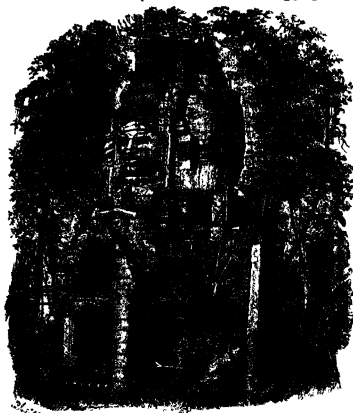
the country these Indians are reputed to have come from, and to how late a date that art continued to be practised in the north-west, we are no longer puzzled to understand the prevalence of classical details in this temple, but to work out the connection in all its variations is one of the most interesting problems that remain to exercise the ingenuity of future explorers.

Bayon.

The great temple of Bayon, within the city walls of Angkor Thom, is supposed to have been founded by the first king of the dynasty, Jayavarman II., and consecrated by Yasovarman about 900 A.D. This temple belongs to the third class, where, in consequence of the height of the two great platforms on which it is built and of the central sanctuary, a pyramidal contour is given to the structure. It is regarded as the *chef d'œuvre* of Cambodian architecture, not only on account of the splendour and vigour of its sculptured decorations, but for the magnificence of its plan (Woodcut No 467). The principal difference between it and Angkor Vât is found in the second platform, and the great importance given to the sanctuary Instead of having a third enclosure, the four angles of the second enclosure are filled with smaller courts, so as to leave sufficient space for the great entrance porches on the north, south and west sides, and for the entrance porch vestibule and two other halls preceding the sanctuary on the east side Supplementary porches and halls are placed on the diagonal lines, with a double peristyle enclosing the whole, which must have formed a group of exceptional magnificence.

In consequence of the terrible ruin which pervades the whole structure, owing to the forest of trees which has invaded it, there is no general view of it to be obtained, and its appearance can only be gathered by imagining the effect of Angkor Vât with fifty towers instead of nine, the whole more richly and elaborately ornamented than even that temple, to this must be added the increase of the pyramidal composition, owing to the closer grouping of all the towers and their decoration with the four great masks of Brahmâ on each face, masks which, in their fine modelling and expression, are only approached by the great Egyptian Sphinx. Woodcut No. 468, representing one of the inner towers about 50 ft. high, gives some idea of the still greater examples—that over the sanctuary being calculated as 130 ft. high. Half way up the tower were eight projecting frontispieces, each carved with the head of Brahmâ and giving greater importance to the sanctuary tower.

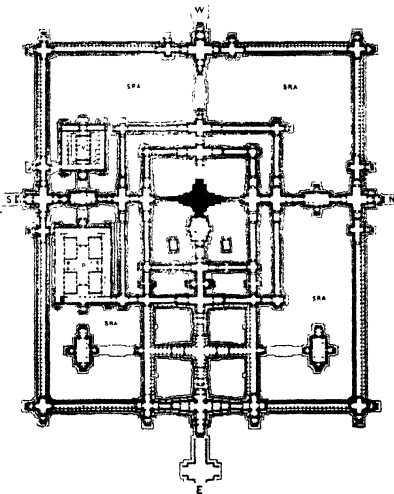
Bayon is the only temple, according to Delaporte, which has

467. Plan of the Temple of Bayon. (From Tissandier's 'Cambodge et Java.')

a double enclosure of sculptured corridors, the aggregate length

468. One of the Towers of the Temple of Bayon in Angkor Thom. (From a Photograph by Mr. J. Thomson.)

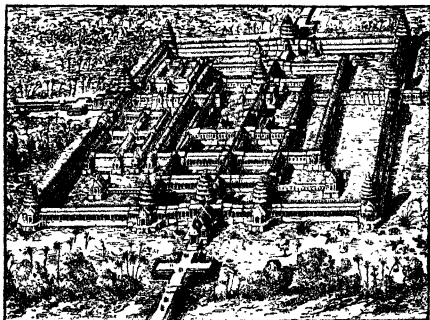
of which has been calculated to be over 36,000 ft., or nearly twice that of Angkor Vât.

Beng Méaleâ.

The third great example is that of the temple of Beng Méaleâ (Woodcut No. 469), about 20 miles east of Angkor Thom. This temple belongs to the first class, all the enclosures being more or less on the same level. No inscriptions of any kind have been found on the structure, but according to Aymonier, who judges by the general design and decoration, it probably belongs to the 9th century. There is an exceptional feature in it; in the first enclosure on the south or left hand side are two groups of buildings which are assumed to

have been the palaces of the King and Queen respectively. The lower or eastern one (P), of which the great central hall, with

469. Plan of the Temple at Beng Méaleä.

a portion of its vault, still exists *in situ*, is supposed to have been the Queen's Palace, this hall being lighted from four courts; the absence of any smaller apartments in this and the western block (V) render its appropriation doubtful, but the great hall with its side aisles would seem to have been built as a throne or state reception room. All the outer courts were filled with

water, forming huge tanks (*sras*), but they are too small to have served for nautical displays. The conjectural restoration, as shown in the bird's-eye view of Beng Méaleâ in Woodcut No. 470, gives a very good impression of the architectural composi-

470 Conjectural Restoration of the Temple of Bĕng Méaleâ. By M. L. Delaporte. (From "Le Cambodge" tome I "le Royaume Actuel" par Etienne Aymonier.)

tion of the Cambodian temples, which, with their smaller corridors and great halls, seem to be more appropriate as palaces All the corridors and halls were vaulted in stone, a type of construction which was employed only in religious structures. The walls of the corridors here were not carved as those of Angkor Vât and Bayon, the decoration being confined to the entrance portals and the towers. One of the cruciform terraces carried on circular piers, to which reference has been made, is shown in this view, without, however, the serpent balustrades or flights of steps down to the lower level, as found at Angkor Vât.

Other Temples.

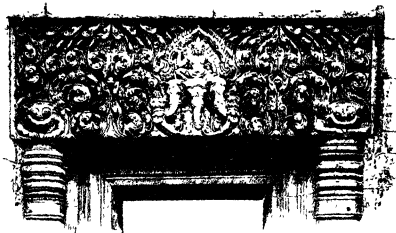
On the east side of Angkor Thom, distant respectively half a mile and a mile from the same, are two temples, Ta Prohm and Bântèai Kedei, which are richly decorated with

fine sculpture. The two inner enclosures are surrounded with corridors, of which the outer one consists of a central and side aisle, as at Angkor Vât, the wall being on the inner side. On the gopuras of the four enclosures, the angles of the larger inner enclosure, the sanctuary, and other structures, there are said to have been as many as twenty-eight towers, nine of which were carved with the four faces of Brahmâ. The temple of Bântèai Kedei is said to have been originally dedicated to Buddha, but as the faces of Brahmâ decorate the towers of the east and west gopuras, this is doubtful. The plan of the two structures in the inner enclosure differs from any other examples, the larger one—which from its position should be the sanctuary, consists, according to Aymonier,[1] of a series of four corridors, running north and south and east and west, crossing one another and carrying corbelled domes at their intersection.

In the temple of Phnom Chisor (Prov. Bâti) the corridor of the single enclosure is subdivided by a number of cross walls forming separate compartments, four of which have entrance doors, a flight of steps leading to the park outside, and to the internal court All the rooms are lighted by baluster windows, those on the east or entrance side looking outwards, the others on to the court. The same disposition of windows is found in the temple of Prah-khan (Prov. Kompong Svay), but here the corridor is not subdivided by cross walls. Parts of that temple, of which two illustrations are given, are well preserved (Plate XLV.), showing the baluster windows and the universal doorway, which is found in all the temples, varying only in the sculptured decoration of the architrave and the tympanum of the gable. The octagonal shafts which flank the entrance doors of all the Cambodian temples are gone in this instance at Prah-khan, but Woodcut No. 471, at Bassak, may be taken as a typical example of the usual doorway.

The courses of masonry of the temples are always horizontal, and those above the doorway are carried far back into the wall, so that the octagonal shafts on each side are only decorative features. The architecture above the door is always richly carved with varying designs, the gable being enshrined with two serpents with Nâga head terminations, which respond to the antefixæ of Greek temples; outside the serpents' bodies are flames which take the place of crockets, and the tympana are carved with figures. The same illustration (Plate XLV.) shows the rectangular windows with balustrades, the panel decoration between them with female figures representing the Thevadas or

[1] *Op. cit.* tome iii. pp. 19-21.

goddesses, the richly sculptured cornices with cresting, and the roofs carved in imitation of tile construction, though all built in stone in horizontal courses. Some idea may also be conceived,

471 Carved Lintel of the Temple at Bassak.

as shown in Plate XLV., of the terrible ruin which is overtaking all the Cambodian temples owing to the overgrowth of the trees. The preservation of this building, constructed nearly nine centuries ago, is very remarkable, and this is borne out better in Plate XLIV, where, owing to the magnificent construction, the tower still stands erect, having lost only its two upper storeys and lotus cresting.

Pyramid Temples.

The finest example of the pyramid temples is that of Bapuon, immediately south of the palace in Angkor Thom. It bears considerable resemblance to the temple of Bayon, but the height of the second and third platforms is much greater than in the latter; thus whilst the first and second platforms of Bayon are respectively 10 and 26 ft. in height, those of Bapuon are 21 and 37, and the third platform is 48 ft. high. The Brahmâ masks were not carved on the twenty-eight towers of Bapuon, nor are the walls of the corridor enriched with the bas-relief sculpture of Bayon and Angkor Vât. The richness in beauty of the carving, however, is quite as fine as that of Bayon, and the arabesque scrolls of the architrave at Bassak (Woodcut No. 471), and of the pilasters and vertical panels elsewhere bear much resemblance to 12th century work French Gothic. The Chinese traveller of the 13th century already

referred to,[1] after mentioning the central tower of Bayon, refers to a second example surmounted by a tower of gold copper, much higher than that first named, and adds: "in the palace enclosure is another golden tower, which can only be that of Phiméanakas, the pyramid temple," in the centre of the palace enclosure in Angkor Thom. The lower platform of this temple measures 131 ft. by 82 ft., and is 8 ft. high, the second is 23 ft. high, and the third 20 ft.; the upper platform is surrounded by a vaulted corridor barely 4 ft. wide inside, with rectangular windows on each side; only the lofty substructure of the sanctuary remains, which it is thought may have carried a lofty tower in wood covered with copper and gilded.

Of simpler types of the pyramidal temple, the example on the hill of Bakheng, south of Angkor Thom, is interesting, owing to the small towers, thirty-six in number, built within the first enclosure and outside the central pyramid; constructed originally to locate a statue, such as remain are utilised now as columbaria in which the ashes of parents are deposited. The pyramid consists of five platforms, on each of which are small circular turrets about 15 ft. high; on the upper platform was a cruciform sanctuary of importance, but now in such a state of ruin that its plan cannot be well determined. In the temple of Ta Keo, east of Angkor Thom, there are two enclosures, the inner one with corridor and tower on each side of the entrance gopura, and in the centre a pyramid of three storeys with a lofty sanctuary and four other towers. The symmetrical arrangement of the towers in this temple and in those at Bakheng and the similarity of design show that all date from the same period, and that they were probably built as memorial structures.

PALACES.

Whether any of the immense structures already described were ever occupied as residences by the Cambodian monarchs is not known, but the latest writer on the subject, General de Beylié, assumes, and he is followed to a certain extent by some other French authorities, that some of the temples were built as palaces for the King and occupied by him, his family, and courtiers, though in a Brahmanic state this is hardly probable.[2] It should be pointed out, however, that in the outer court of Beng Méaleâ are two groups of structures which have been described as

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[1] Page 373.

[2] It should be borne in mind that in earlier times the monasteries or Mathas of the Brâhmans, being also colleges for sacred studies, must have been extensive to provide accommodation for the numerous students and pandits, and were liberally supported by royal bounties. These great structures may in many cases have been such collegiate Mathas.—Conf. Lajonquière 'Inventaire Descriptif,' tome ii. Introd. p. 29.

the palaces of the King and Queen respectively, whereas if the temple had been built for a palace, they would be found in the central enclosure. On the west side of Phimêanakas, and within the palace enclosure of Angkor Thom, are the foundations of buildings, which are supposed to have been the residences of the King and his family; the women's quarters occupying the whole width of the enclosure against the west wall, in which there is no entrance gate At Vât Phu, near Bassak, on either side of the causeway leading to the temple, is a structure of about 150 ft. frontage with a rectangular court at the back and surrounded with a corridor vaulted like those in the temples· and those are considered to be palaces, though they may have been occupied only by the Kings of Bassak, who were subject to the Cambodian monarch. Again at Phnom Chisor, to which reference has been made, on the north side of the court the sills of the windows are 6 ft from the ground, so that the corridor they lighted may have been occupied by women. But in all these cases the accommodation would barely be sufficient for a hunting box, and for a monarch like the King of Cambodia, whose retinue consisted of hundreds if not thousands, the temples of Angkor Vat and Beng Mealeâ, Ta Prohm and Prah-khan, are the only structures which could possibly hold them As regard Bayon, situated within the city of Angkor Thom and in proximity to the palace, that may have been occupied by the priests only, but in Angkor Vât and Beng Méaleâ the series of magnificent halls which figure in the enclosures would seem to have been provided for the needs of a great court; this, however, is a subject which requires further investigation, on which it is hoped that other inscriptions found, when deciphered, may perhaps throw more light The temple and the King's palace were the only buildings in Cambodia where permanence was obtained by vaulting them over in stone. As this, according to the Cambodian system of construction, could only be effected by horizontal courses of stone corbelled out, the dimensions of the galleries and halls were extremely limited in their width, and increased accommodation could only be met by their extension in length—thus the outer corridor of Angkor Vât was 2,400 ft. in length, the cross halls in front of the second enclosure and those of the latter measure 1,800 ft., and the inner enclosure, including the passages leading to the sanctuary, about 900 ft. more, or altogether about 4,300 ft of corridor, of which 3,300 ft, with the double aisles, was only about 18 ft. wide, and the remainder 10 ft. wide or less. Halls of greater width must have had roofs of timber covered with tiles, which have all disappeared long ago, and can never have had a long existence, as the termites or white ants in Cambodia

rendered timber an ephemeral construction, teak being the only wood they are unable to destroy. One or two bas-reliefs give representations of small structures in front of which are groups of figures supposed to represent the King and his family, and these in design are identical with the gopuras which form the entrances to all the temples.

CIVIL ARCHITECTURE.

The principal remains existing are those of the great enclosure walls and the gates of Angkor Thom the capital, founded by Jayavarman II., the first king, but not completed or occupied till the reign of Yasovarman, the fourth king. The city measured close upon 10,000 ft. from east to west, and 9,600 ft. from north to south, giving a perimeter of 7½ miles to the enclosure walls. Those walls, about 22 ft. high, were surrounded by a moat 300 ft. wide and entered through five gates, one on the north, south and west sides, and two on the east, the most important, called the Gate of Victory leading to the palace. Its plan, like those of the gopuras to which reference has been made, was cruciform, consisting of a central gateway 52 ft. square, with recessed angles and side wings. Three towers, the upper portions of which were sculptured on all four sides with the Brahmâ mask in stone similar to those in Woodcut No. 468, rose above the central gateway and the side wings. On each side of the gateway and in the recessed angles elephants' heads and trunks were carved, and above them numerous figures of Nâgas and other subjects. This is probably the entrance gateway described by the Chinese visitor in 1295, as he refers[1] to the great heads in stone above the gateways which he thought to be those of Buddha, to the figures of elephants on each side of the entrance gateway, and to the great bridge over the moat in front, on each side of which were fifty-four statues in stone of great height carrying a serpent with nine heads. The trunk of the serpent's body in this case formed the balustrade and at the entrance to the bridge were immense Nâga heads similar to those shown in Plate XLIV., Fig. 2. Portions of these figures still exist, as also traces of those in front of the other gates. Similar parapets have also been found at Bântèai Prah-khan, north of Angkor Thom. The other eastern gate led to the temple of Bayon, already referred to. The palace enclosure, situated nearly in the centre of the city, measured about 2,000 ft. by 800 ft., and was

[1] 'Description du Royaume de Cambodge par un voyageur Chinois qui a visité cette contrée à la fin du xiiie siècle,' traduit du Chinois par M. Abel Remusat. 1817.

surrounded by a double wall, with moat between. The western portion of the enclosure was probably occupied by the King and his family, and with the exception of the pyramidal temple of Phimêanakas, a few towers and many stone banks, no architectural remains have been found. In front of the palace enclosure was a great terrace over 800 ft. long by 45 ft. wide, and 15 ft. high, the walls of which were sculptured with elephants, no traces of walls of any description have been found in front of this terrace, suggesting that it formed an open space where reviews took place before the King and his courtiers on the terrace. At the north end of this square is a cruciform structure about 30 ft. wide and 60 ft. long, richly decorated, with six bands of sculptured figures, and it was on the top of this that the French explorers found the supposed statue of the leprous king to whom the monument was ascribed.

The walls of the cities were also of very great extent, and of dimensions commensurate with their importance. They seem generally to have been constructed of a coarse ferruginous stone in large blocks, and only the gates and ornamental parts were of the fine-grained sandstone of which the temples and palaces are built. Wonderful as these temples and palaces are the circumstance that, perhaps, after all gives the highest idea of the civilisation of these ancient Cambodians is the perfection of their roads and bridges. One great trunk road seems to have stretched for 300 miles across the country from Korat, in a south-easterly direction, to the Me-kong river. It was a raised causeway, paved throughout like a Roman road, and every stream that it crossed was spanned by a bridge, many of which remain perfect to the present day Dr Bastian describes two of these: one, 400 ft. in length, and 50 ft in breadth, richly ornamented by balustrades and cornices, and representations of snakes and the Snake king.[1] The extraordinary thing is, that it is constructed without radiating arches, but like every structure in the place, by a system of bracketing or horizontal arches, and without cement. Yet it has withstood, for five centuries at least, the violence of the tropical torrent which it spans.

Even if no vestiges of these roads or bridges remained, the sculptures of Angkor Vât are sufficient to prove the state of perfection which the art of transport had reached in this community. In these there are numerous representations of chariots, all with wheels from 3 ft. or 5 ft. in height, and with sixteen spokes, which must be of metal, for no London coachmaker at the present day could frame anything so delicate

[1] 'Journal of the Royal Geographical Society,' vol. xxxv. p. 75.

in wood. The rims, too, are in metal, and, apparently, the wheel turns on the axle Those who are aware how difficult a problem it is to make a perfect wheel will appreciate how much is involved in such a perfect solution of the problem as is here found. But it requires a knowledge of the clumsiness of the Romans and our mediæval forefathers in this respect, and the utter barbarism of the wheels represented in Indian sculptures and still used in India, to feel fully its importance as an index of high civilisation.

If, however, the Cambodians were the only people who before the 13th century made such wheels as these, it is also probably true that their architects were the only ones who had sufficient mechanical skill to construct their roofs wholly of hewn stone, without the aid either of wood or concrete, and who could dovetail and join them so beautifully that they remain watertight and perfect after five centuries of neglect in a tropical climate Nothing can exceed the skill and ingenuity with which the stones of the roofs are joggled and fitted into one another, unless it is the skill with which the joints of their plain walls are so polished and so evenly laid without cement of any kind It is difficult to detect their joints even in a sun-picture, which generally reveals flaws not to be detected by the eye. Except in the works of the old pyramid-building Egyptians, I know of nothing to compare with it.

When we put all these things together, it is difficult to decide whether we ought most to admire the mechanical skill which the Cambodian architects displayed in construction or the largeness of conception and artistic merit which pervades every part of their designs. These alone ought to be more than sufficient to recommend their study to every architect. To the historian of art the wonder is to find temples with such a singular combination of styles in such a locality—Indian temples constructed with pillars almost purely classical in design, and ornamented with bas-reliefs so strangely Egyptian in character. To the ethnologist they are almost equally interesting, in consequence of the religion to which they are dedicated. Taken together, their circumstances render their complete investigation of the utmost importance.

CHAPTER III.

SIAM.

CONTENTS.

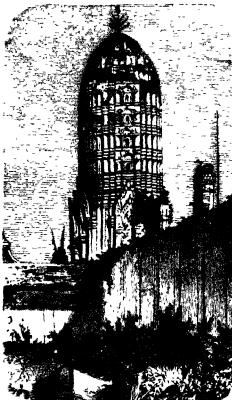
Structures in the temple enclosures—Temples at Sukhodaya, Phra Pathom, Sajjanâlaya, Ayuthiâ, Lophaburi, Sangkalok and Bangkok—Hall of Audience at Bangkok.

ALTHOUGH the architecture of Siam is much less important than that of Burma on the one hand, or Cambodia on the other, it is still sufficiently so to prevent its being passed over in a general summary of styles. Its worst feature, as we now know it, is, that it is so extremely modern. In the 10th century the Thai, a people from Sayam-desa on the north, began to press southwards against the earlier Brahmanical state of Cambodia, and founded a new kingdom. Up to the 14th century the capital of this country was Sukhothai, or Sukhodaya, a city on the Me-nam, 250 miles from the sea in a direct line, and situated close to the hills.[1] About the year 1350 the Thai, now known as Siamese, were successful in their wars with the Cambodians, and eventually succeeded in capturing their capital, Dwâravatî, which, under the name of Ayuthiâ, became the capital of the new empire, and practically they annexed all the western provinces of Cambodia to their dominion. They brought in Buddhism, which proved fatal to the Brahmanical civilisation, and architecture with the other arts degenerated.

Having accomplished this, they moved their capital down to Ayuthiâ, a little more than 50 miles from the sea; and three centuries afterwards Bangkok succeeded it, and is now

[1] This city was visited by the late M. Lucien Fournereau, who was sent by the French Government in 1891 on an archæological mission to Siam. The results of his researches are published in two quarto volumes with admirably drawn plans of numerous temples and photogravures of their remains. The second volume appeared after the author's death in 1906, and contains plans of the older temples at Sangkalok, Phitsanulok, Lophaburi and Ayuthiâ, but unfortunately without descriptions.—'Le Siam Ancien: Archéologie—Epigraphie—Géographie' ('Annales du Musée Guimet,' tome xxvii. part 1, and xxxi. part 2), 1905 and 1908.

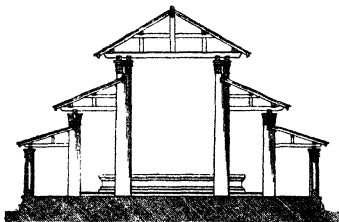
the capital. It is by no means certain whether this migration downwards was caused by political events and increasing commerce, or from the country gradually becoming drier and more fit for human habitation. Judging from what happened in Bengal in historical times, I should fancy it was the latter.

In India we find civilised nations first established in the Panjâb and on the watershed between the Satlaj and the Jamnâ. Between 2000 and 3000 years B.C. Oudh seems to have become dry enough for human habitation, and Ayodhyâ (from which the Siamese capital took its name) became the chief city. Between 1000 and 500 B.C. Jânakpur on the north, and Râjagriha on the south, were the capital cities of Bengal; but both being situated on the hills, it was not till Asoka's time (250 B.C.) that Patna on the Sôn and Vaisâlî on the Ganges, became capitals; and still another 1000 years elapsed before Gaur and Dacca became important, while Murshidâbâd, Huglî, and Calcutta, are cities of yesterday.[1] The same phenomenon seems to have occurred in Siam, and, what is of still more interest, as we shall presently see, in Cambodia.

472. Ruins of a Pagoda at Ayuthiâ

As Ayuthiâ was for three centuries the flourishing capital of one of the great building races of the world, we should, of course, look for considerable magnificence having been displayed in its architecture. From the accounts of the early Portuguese and Dutch travellers who visited it in the

[1] For the particulars of this desiccation of the Valley of the Ganges, see the 'Journal of the Geological Society,' April, 1863

days of its glory, it seems to have merited the title they bestowed upon it of the "Venice of the East," and the remains justify their eulogiums. Some of the buildings, however, seem to have been constructed of brick and wood; and as the city has now been practically deserted for more than a century, the wild fig-trees have everywhere inserted their roots into the masonry, and decay has progressed rapidly among the wooden erections. As described by recent visitors, nothing can be more wildly picturesque than this once splendid city, now overgrown with jungle; but such a stage of decay is, of all conditions, the least favourable to the researches of the antiquary. Fournereau, however, was able not only to measure and work out the plans of some twenty temples, which are illustrated in his work already referred to, but to classify and describe the various constructions found in the enclosures of the temple, giving them the local names, and thus throwing an entirely new light on Siamese architecture

Vât is the name given to the outer enclosure of a temple, which was always rectangular, and generally of greater length

473. Transverse section of the Bot of Vât Jaï, Sukhodaya.

than width. The enclosure walls were as a rule about 3 ft. thick, and from 12 to 14 ft. high. The most important building in the Vât was the Bot—the sacred temple—and usually the first built. This would seem to correspond with the Burmese *Thein*, or ordination hall for priests,[1] but in Siam it was always included in the temple enclosures, where it stood opposite the principal

[1] Sanskrit, *Uposathâ-gâra*, or *Upasthâna sâla*.—*Ante*, vol. i. pp. 213, 242.

PLATE XLVI

Phra-Chedi and Phra-Prang

[To face page 407, Vol II

entrance. In Burma it seems sometimes to have been built in a separate enclosure of its own. The Bot was rectangular on plan, and was divided into central and side aisles by columns in stone, carrying open timber roofs covered with glazed tiles in bright colours. The illustration of the Bot of the Vât Jaï at Sukhodaya (Woodcut No. 473) shows that in section it resembled that of an early Christian church with nave and side aisles. The roofs over the side aisles were at a lower level than that of the central aisle, leaving space for a clerestory, which consisted of pierced terra-cotta slabs. Similar perforated screens were built in between the outer columns of the aisles. In important temples the Bot had double aisles on each side. The system of tenoning beams into the columns is similar to that which is found in Chinese temples and halls, but here in Siam the columns are sometimes crowned with capitals carved with lotus leaves, the main beams and plates resting on the top of the capitals, the transverse beams across the aisles, and the beams carrying the clerestory being tenoned into the columns.

The principal feature in the Bot, admission to which was confined to the priests, was the great altar carrying a gilded statue of Buddha, which was always placed in the central aisle, in the last bay but one. The Bot, which was always preceded by a porch, as a rule stood opposite the east entrance of the enclosure.

In its rear was the principal Phra, or stûpa, of the temple, of which there were two types of design (Plate XLVI.), the Phra-Prang and the Phra-Chedi. The former is of a type peculiar to Siam; about half-way up is the cell, with its entrance door on the eastern side, access to which was obtained by a steep flight of steps, and recessed niches on the three other sides; the form which it takes differs in many essential respects from those we find either in India or Burma. The top, or upper part (Woodcut No. 472), has a domical shape, which we can easily fancy to be derived from the stûpa, but the upright part looks more like the *S*ikhara of a Hindû temple than anything Buddhist.

The Phra-Chedi is based apparently on the stûpas of India, the cell containing the relics of Buddha, however, being placed underground, and reached in the larger examples by secret passages in the thickness of the walls. There is also sometimes one characteristic Siamese feature not found in India or Cambodia, in the lower storey of the annulet spire, round which a series of detached columns or piers are built, giving the aspect of a classic peristyle; this exists in one of the Phra-Chedis of Vât Jaï, at Sukhodaya, and in the great example at Phra Pathom. The enormous structure now existing of the

Pathom Chedi is the second enclosure or envelope of the original Chedi, and rises to the height of 344 ft. It is surrounded by a triple gallery with numerous pavilions, the roofs of which were in the last rebuilding of 1862 copied from those of Angkor Vât in Cambodia.

Among other buildings cited by Fournereau are the Vihâns (Vihâras) and Kamburiens, similar in design to the Bot, but of smaller dimensions, where the people assembled to offer up prayers and listen to sermons.

Of the exceptional buildings found only in the Royal temples are the Chattamukk [1] and the Mondob (Mandapa) or Mora-dob. The former, cruciform in plan, was originally built to shelter a statue of the four-faced Brahmâ; this has been destroyed, and its place taken by four niches, placed back to back, each with a statue of Buddha facing the cardinal points. The finest example is found in the Vât Mondob Sî Nà at Sajjanâlaya, where the plan is that of a Greek cross, nearly 100 ft. in its extreme dimensions, with central and side aisles to each arm. The Mondob is usually a rectangular building, containing a statue of Buddha. In the Vât Si Jum at Sukhodaya, it measured 57 ft. wide by 70 ft. deep, and sheltered an immense statue of Buddha, nearly 50 ft. high, which was constructed in brick, coated with stucco and gilded. The walls of the Mondob were also built in brick, and they carried a lofty roof or tower of the same material; at a height of 32 ft. from the ground the brick courses commenced to project one in front of the other, till they met at the top, thus forming in section an inverted pyramid. Both externally and internally, the brick walls and roof were coated with stucco. The roof has now fallen in, but the structure when built was probably over 100 ft. high. Smaller Mondobs or pavilions were built to hold the Buddhapâda, the mythical representation of the sacred foot of Buddha.[2] Two other buildings are quoted by Fournereau, the Ho' Rakhang, or belfry, and the Ho' Trai, or sacred library, the latter found only in the Royal temples. The sacred tank in the enclosures was known as the *Sa*, equivalent to the Cambodian *Sra*.

Of some of these structures many examples would be found in the same enclosure, thus in the Vât Jaï at Sukhodaya, the most important temple illustrated by Fournereau, there was one great Phra-Chedi and its annexes, two Bots, six Vihâns, three Kamburiens, one Mondob, ten small pavilions, five Phra-Prang, and over a hundred Phra-Chedi, most of these being

[1] Sanskrit, *Chaturmukha*; these are analogues of the Jaina Chaumukhs. Brahmâ is styled Chaturmukha and Chaturvaktra—having four heads.

[2] Called the *Phrabat*. — Alabaster, 'Wheel of the Law,' pp. 283ffg. and plate. The most famous Phrabat in Siam is about 12 miles from Lophaburi.

PLATE XLVII

Vat Sisavai, Sukhodaya

[To face page 409, Vol II

erected by private persons as funeral monuments and memorials —altogether nearly two hundred structures, all of which are shown on Fournereau's plan; the photographs published in his work show the great extent of the remains still existing of the Vât Jai at Sukhodaya. The principal Phra differs slightly in design from those already described—the upper part being partly Chedi and partly Prang, it is raised on a platform and surrounded by eight smaller towers, consisting of a lower storey, with niche on each side containing a statue of Buddha, with a superstructure recalling the entrance doorways of Cambodia and Java, though the sculpture is very inferior. Above the architrave, carried by rectangular piers with moulded capitals, is a pediment enclosed with richly carved moulding, with dragons' heads on each side, and in the tympanum, which forms a niche, is a figure of Buddha in the Nirvâna posture, with other figures much mutilated below. Above there is a second storey with a repetition of the pediment and niche to a smaller scale, and there may have been a third storey, rising about 25 feet in height, the great Phra in the centre being 80 to 90 ft. high. Three towers of a similar kind, placed side by side, exist in the Vât Sisavai, also at Sukhodaya (Plate XLVII.), where they take the place of the Phra. Above a plain ground storey, with three angle projections, are other storeys, of which six still exist in the western tower on the right, and on each face is a niche with trefoil head and Nâga terminations enclosing a statue and, on the angle projections, antefixæ carved with heads of Garudas and other deities. The upper storeys are only slightly set back one behind the other, so that they may be the prototypes of the Phra-Prang already described.

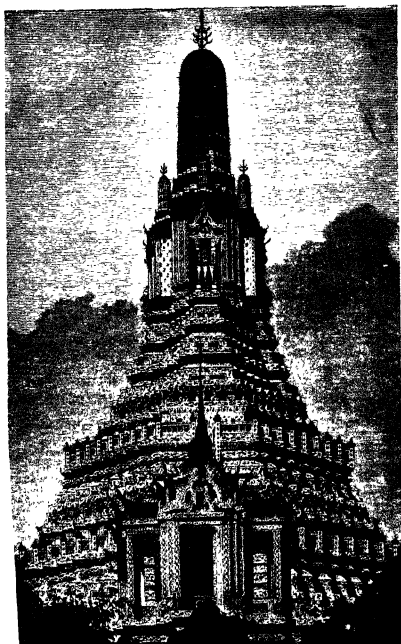
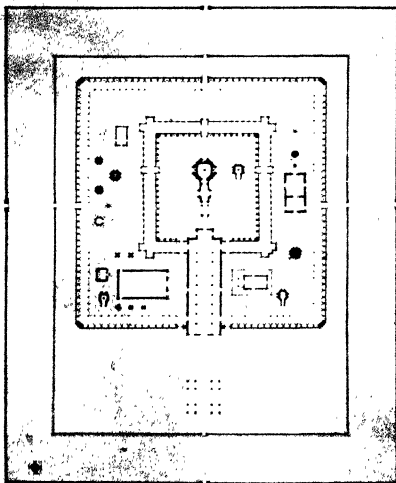
No description is given by Fournereau of the temples in Ayuthiâ and Lophaburi, nor are there any views of the ruins, but his plans suggest a close resemblance to those of Cambodia. Thus in the Vât Thâ Sâo, at Ayuthiâ, the central court, with the great Phra in the centre, is more or less identical with those of Beng Méaleâ and Angkor Vât. The galleries round it and the towers at the angles and in the centre of each front are evidently derived from Cambodia, and may have been carried out by Cambodian architects. The plan of the Phra-Prang in the centre is similar to that of the Cambodian and Javanese temples, with long flights of steps to the entrance porch, and the three small cells or recesses on the three other sides, instead of the one steep flight, as in Siam. The Bot in this temple measures 228 ft. long by 49 ft. wide, and is one of the largest examples in Siam. In the Vât Phu Tai, also at Ayuthiâ, the inner court has galleries round it, the entrance to the same being flanked by

474. The Great Tower of the Pagoda Vat-ching at Bangkok. (From Mouhot.)

PLATE XLVIII

Plan of the Vat Na Phra-That, Lophabuki.

[*To face page* 411, Vol. II.

two Vihâns, one on either side, the Bot being here transferred to the rear, or the west side, with a western entrance.[1] In the Vât na Phra-Thât at Lophaburi (Plate XLVIII.), the plan is more complicated, there being an outer and inner galleried court, united by the Bot, in front of which is a porch of unusual dimensions, precede ' by what seemed to be a triumphal entrance gate. Numerous Phras and other structures are shown in the outer galleried court, such as exist in all the plans drawn by Fournereau. A view of the central temple is given in P. A. Thompson's 'Lotus Land' (p. 240), its tower bears considerable resemblance to one of the Vât Sisavai towers (Plate XLVII.). The gallery is shown also on the plans of two temples at Sangkalok and in the Vât Xang Phuek at Sajjanâlaya. An exceptional Vihân is found in the Vât Phra-nôn, also at Sajjanâlaya, where the roof is carried by sixteen square piers, four rows of piers with four in each row.

The influence of Cambodia is shown also in the Vât Phra Prang Sam Yôt at Lophaburi, which consists of three sanctuaries, cruciform on plan, side by side, with corridors between them. Above each of these sanctuaries is a lofty tower with five receding storeys, enriched with sculptured features, similar to those of the Vât Sisavai at Sukhodaya (Plate XLVII.).

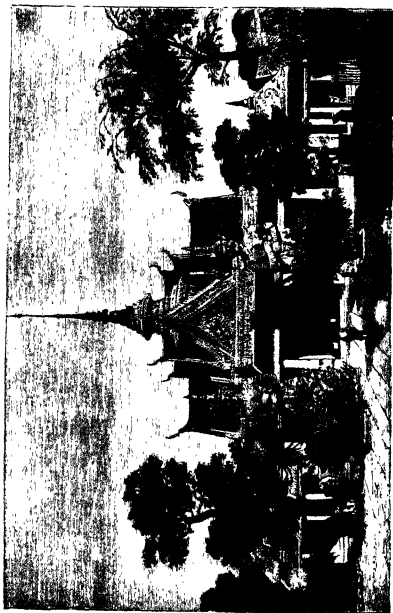
The design of the Phra-Prang is found in the crowning members of the pagodas of Bangkok, but they are covered with an elaboration of detail and exuberance of coloured ornament that has seldom been surpassed, nor is it desirable it should be, for it is here carried to an extent truly barbarous (Woodcut No. 474).

Notwithstanding the bad taste which they display, these Bangkok pagodas are interesting in the history of architecture as exemplifying the instinctive mode in which some races build, and the innate and irrepressible love of architecture they display. But it also shows how easily these higher aspirations degenerate into something very like vulgarity, when exercised by a people in so low a stage of civilisation as the modern Siamese.

The same remarks apply to their civic buildings: palaces and porticos, and even dwelling-houses, are all as rich as carving and gilding and painting can make them; but, as in the pagodas, it is overdone and fails to please, because it verges on vulgarity.

The typical design of all these halls and minor buildings will be understood from the following woodcut (No. 475), representing the Hall of Audience at Bangkok. Like all the others, it

[1] The Bot can usually be distinguished from the Vihân by the Phra-Sema, or boundary stones which are set up round it; these are shown on many of Fournereau's plans, and on the plan of Vât Phu Tai round the western structure.

has two roofs intersecting one another at right angles, and a

475. Hall of Audience at Bangkok. (From Mouhot.)

spire of greater or less elevation on the intersection. Sometimes one, two, or three smaller gables are placed in front of the first, each lower than the one behind it, so as to give a pyramidal effect to the whole. Generally, the subordinate gables are of the same width as those in the centre; but sometimes the outer one is smaller, forming a porch. In the audience hall just quoted there are three gables each way. These may be seen on the right and left of the central spire in the view, but the first and second towards the front are hidden by the outer gable. The point of sight being taken exactly in front, it looks in the view as if there were only one in that direction.

The Burmese adopt the same arrangement in their civil buildings, and in Siam and Burma the varieties are infinite, from the simple pavilion with four gables, supported on four columns, to those with twelve and sixteen gables, combined with a greater complication of walls and columns for their support.

As the Siamese are certainly advancing in civilisation, it may be asked, Will not their architecture be improved and purified by the process? The answer is, unfortunately, too easy. The new civilisation is not indigenous, but an importation. The men of progress wear hats, the ladies French gowns, and they build palaces with Corinthian porticos and sash-windows. It is the sort of civilisation that is found in the Bâzâr in Calcutta, and it is not desirable, in an architectural point of view, at all events, if, indeed, it is so in any other respect.

CHAPTER IV.

JÂVA.

CONTENTS.

History—Boro-Budur—Temples at Mendut—On the Dieng Plateau—At Jabang—Prambânan—Suku—Near Melang, and at Panataran.

THERE is no chapter in the whole history of Eastern art so full of apparent anomalies, or which so completely upsets our preconceived ideas of things as they ought to be, as that which treats of the architectural history of the island of Jâva. In the Introduction, it was stated that the leading phenomenon in the history of India was the continued influx of race after race across the Indus into her fertile plain, but that no reflex wave had ever returned to redress the balance.[1] This seems absolutely true as regards the west, and practically so in reference to the north, or the neighbouring countries on the east. Tibet and Burma received their religion from India, not, however, either by conquest or colonisation, but by missionaries sent to instruct and convert. This also is true of Ceylon, and partially so at least of Cambodia. These countries being all easily accessible by land, or a very short sea passage, it is there that we might look for migrations, if any ever took place, but it is not so The one country to which they overflowed was Jâva, and there they colonised to such an extent as for nearly 1000 years to obliterate the native arts and civilisation, and supplant it by their own What is still more singular is, that certain of the traditions assert that it was not from the nearest shores of India that these emigrants departed, but from the western coast. We have always been led to believe that the Indians hated the sea, and dreaded long sea voyages, yet it seems not improbable that the colonists of Jâva came not from the valley of the Ganges, but from that of the Indus, and passed

[1] "As for the Indian kings none of them ever led an army out of India to attempt the conquest of any other country, lest they should be deemed guilty of injustice."—Arrian, 'Indica,' ch. ix.

round Ceylon in thousands and tens of thousands on their way to their distant sea-girt home. The solution of this difficulty may perhaps be found in the suggestion that the colonists were not Indians after all, in the sense in which we usually understand the term, but nations from the north-west—the inhabitants in fact of Gandhâra and Kâmbojâ,[1] who, finding no room for new settlements in Indian Proper, turning to their right, passed down the Indus, and sought a distant home on this Pearl of Islands.

Whoever they were, they carried with them the bad habit of all their cognate races, of writing nothing, so that we have practically no authentic written record of the settlement and of its subsequent history, and were it not that they made up for this deficiency to a great extent by their innate love of building, we should hardly know of their existence in the island. They did, however, build and carve, with an energy and to an extent nowhere surpassed in their native lands, and have dignified their new home with imperishable records of their art and civilisation —records that will be easily read and understood, now that the careful survey of the antiquities has been undertaken by the Dutch Government under the direction of a highly qualified Commission.

It has been said, and not without reason, that the English did more for the elucidation of the arts and history of Jâva during the five years they held the island (1811 to 1816) than the Dutch had done during the previous two centuries they had practically been in possession. The work of the governor, Sir Stamford Raffles, is a model of zealous energy and critical acumen, such as is rarely to be found of its class in the English language, and is the storehouse from which the bulk of our knowledge of the subject till quite lately had to be derived. His efforts in this direction were well seconded by two Scotsmen, who took up the cause with almost equal zeal. One of these, John Crawfurd, noted down everything he came across with patient industry, and accumulated vast stores of information—but he could not draw, and knew nothing of architecture or the other arts, with which he had no sympathy. The other, Colin Mackenzie—afterwards Surveyor-General of India—drew everything he found of any architectural importance, and was the most industrious and successful collector of drawings and manuscripts that India has ever known; but he could not

[1] The Kâmbojas were a non-Aryan people inhabiting the Kâbul valley. They are mentioned in the 5th and 13th Asoka Edicts.—'Epigraphia Indica,' vol. ii. pp. 447ff.; 'Bombay Gazetteer,' vol. i. pt. 1, pp. 490f.

write. The few essays he attempted are meagre in the extreme, and nine-tenths of his knowledge perished with him. Had these two men been able to work together to the end, they would have left little for future investigation. There was, however, still a fourth labourer in the field—Dr. John Leyden—who, had his life been spared, could have easily assimilated the work of his colleagues, and with his own marvellous genius for acquiring languages and knowledge of all sorts, would certainly have lifted the veil that shrouded so much of Javan history in darkness, and left very little to be desired in this respect. He died, however, almost before his work was begun, and the time was too short, and the task too new, for the others to do all that with more leisure and better preparation they might have accomplished.

During the last ninety years the Dutch have done a good deal to redeem the neglect of the previous centuries, but, as has happened in the sister island of Ceylon, it was for long without system, and no master mind appeared to give unity to the whole, or to extract from what is done the essence, which is all the public care to possess. The Dutch Government, however, published in 1874, in four great folio volumes, 400 plates, from Mr. Wilsen's drawings, of the architecture and sculptures of Boro-Budur; and the Batavian Society of Arts and Sciences published sixty-five photographic plates of the same monument; and as Dr Leemans of Leiden added a volume of text, historical and descriptive, there is no monument in the East so fully and so well illustrated as this one, and probably none that better deserves the pains that have been bestowed upon it. The same Society published also 333 photographs of other Javan antiquities and temples, but, unfortunately, for the most part without any accompanying text. A thoroughly well qualified antiquary, Heer Brumund, was employed to visit the localities, and write descriptions, but unfortunately he died before his task was half complete. A fragment of his work is published in the 33rd volume of the 'Transactions' of the Society, but it is only a fragment, and just sufficient to make us long for more. At the same time an Oriental scholar, Dr. R. H. Th. Friederich, was employed by Government to translate the numerous inscriptions that abound in the island, which would probably explain away all the difficulties in the history of the island and its monuments, but none have appeared since some of these were published in the 26th volume of the 'Verhandelingen' in 1856.

Within the last twenty years, however, many works have been published, which add considerably to our knowledge, one

of the earliest being that of Herr J. W. Ijzerman[1] on the country between Surakarta and Jogjakarta (1891). His work includes all the temples in the vicinity of Prambânan and a conjectural restoration of the temple of Kali-Bening, unfortunately drawn to so large a scale that the elevation is on two sheets as also the plan. An excellent map of the country also is given with four photographs of the monastery of Sari, which are of great interest. Dr. J. Groneman,[2] working in the same district, has given sixty-two photographs of one of the most important temples, *i.e.*, that at Loro Jonggrang. The plan of this temple is given in a third work by Albert Tissandier,[3] who spent some time both in Jâva and Cambodia measuring the temples of which the plans are published in his book, as also many valuable photogravures. The temples on the Dieng Plateau, described in a work by Herr von Saher,[4] had already been photographed by the Batavian Society, from which series some have been reproduced. Two monographs have also been published, one by Herr Kersjies and G. den Hamer[5] on the small temple of Mendut, 2 miles from Boro-Budur, and the other, by Dr. J. E. A. Brandes, as the first volume of the Archæological Survey on the temple of Jago in the eastern part of the island,[6] followed by a second volume on Singasari and Panataran, in all cases with much architectural detail and excellent plans. A large number of plans and elevations have also from time to time been published in the Reports of the Government Commission appointed in 1901,[7] of which five volumes have appeared. The same subject is also treated in General de Beylié's work,[8] dealing generally with architecture in India and the extreme East.

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[1] 'Beschrijving der Oudheden nabij de Soerakarta en Djogdjakarta,' door J. W. Ijzerman, met Atlas, 4to. S'Gravenhage, 1891. The Atlas consists of map and 32 folding plates, and in the text are 15 photographs on 10 plates.

[2] 'Tjandi Parambanan op midden Java na de Ontgraving,' door Dr. J. Groneman, met 62 Lichtdrukken. Leiden, 1893.

[3] Albert Tissandier, 'Cambodge et Java,' Paris, 1896.

[4] 'De Versierende Kunsten in Nederlandsch Oost-Indie einige hindoemonumenten op midden Java,' door E. A. Von Saher, 1900.

[5] 'De Tjandi Mendoet voor de restauratie,' door B. Kersjies en G. den Hamer (with 22 photo-plates), 1903.

[6] Of the Archæological Survey under the Government Commission have been published:—Tjandi Djago; 'Archæologisch Onderzoek op Java en Madura,' door Dr. J. L. A. Brandes (with 104 photo-plates, 24 sheets of drawings and a map), vol. i. 1904; and 'Beschrijving van Tjandi Singasari en Wolkentooneelen van Panataran,' door H. L. Leydie Melville en J. Knebel (with 113 photo-plates, 19 drawings and 2 maps), vol. ii. 1909.

[7] 'Rapporten van de Commissie in Nederlandsch-Indie voor Oudheidkundig Onderzoek op Java en Madura,' 1901-1906, also, 'Tonnet (Martine) Het werk der Commissie in Nederlandsch-Indie voor Oudheidkundig Onderzoek op Java en Madura,' 1907.

[8] Beylié (Genl. L. de), 'L'Architecture Hindoue en extreme Orient,' Paris, 1907.

HISTORY.

Amidst the confusion of their annals, it is rather fortunate that the Javans make no claim to more remote political history than the fabled arrival in the island of Âdi *S*âka, the founder of the *S*aka era, in A.D. 79.[1] It is true that in the 8th or 9th century they obtained an abridged translation of the Mahâbhârata, and, under the title of the 'Brâta Yuddha,' adopted it as a part of their own history, assigning sites on the island for all the principal scenes of that celebrated struggle which took place in the neighbourhood of Delhi and Hastinâpura, adding only their own favourite Gendara Desa (Gandhâra), to which they assigned a locality on the north of the island.[2] It is thus, unfortunately, that history is written in the East, and because it is so written, the Javans next thought it necessary to bring *S*âlivâhana, the founder of the *S*aka era, to their island also. Having adopted his era, their childish vanity required his presence there, but as it is certain he never saw the island, his visit is fabled to have resulted in failure, and said to have left no traces of his presence.

Leaving these fabulous ages, we come to a tradition that seems to rest on a surer foundation. "In the year 525 (A.D. 603 or 599), it being foretold to a king of Kuj'rât, or Gujarât, that his country would decay and go to ruin, he resolved to send his son to Jâva.[3] He embarked with about 5000 followers in six large and about 100 small vessels, and after a voyage of four months, reached an island they supposed to be Jâva; but finding themselves mistaken, re-embarked, and finally settled at Matârem, in the centre of the island they were seeking." "The prince now found that men alone were wanting to make a great and flourishing state; he accordingly applied to Gujarât for assistance, when his father, delighted at his success, sent him a reinforcement of 2000 people." "From this period," adds the chronicle, "Java was known and celebrated as a kingdom; an extensive commerce was carried on with Gujarât and other countries, and the bay of Matârem was filled with adventurers from all parts."

During the sovereignty of this prince and his two immediate successors, "the country advanced in fame and prosperity. The city of Mendang Kamûlan, since called Prambânan, increased

[1] In Jâva this era dates from A.D. 75, but it may have been altered at a late date.—W. von Humboldt, 'Ueber die Kawi-Sprache auf Java,' Bd. i. S. 10, *note*.

[2] Sir S. Raffles' 'History of Java,' pl. 24; text, vol. i. p. 465, 8vo. edition.

[3] Lassen rejects the statement that the emigrants came from Gujarât or Western India, in favour of another, perhaps earlier, tradition that they came from Kalinga.—'Indische Alterthumskunde,' Bd. ii. (2nd. ed.), Ss. 1066 and 1085, *note*.

in size and splendour: artists, particularly in stone and metals, arrived from distant countries, and temples, the ruins of which are still extant, were constructed both at this place and at Boro-Budur, in Kedu, during this period by artists invited from India."[1]

This is supported by an inscription found at Menankabu, in Sumatra, wherein a king, who styles himself Mahâràja Adirâja Âdityadharma King of Prathama—the first or greatest Jâva—boasts of his conquests and prowess, and he proclaims himself a Buddhist, a worshipper of the five Dhyâni Buddhas, and records his having erected a great seven-storeyed vihâra in honour of Buddha.[2] This inscription is dated fifty years later, or in A.D. 656, but its whole tone is so completely confirmatory of the traditions just quoted from Sir S. Raffles, that there seems little doubt the two refer to events occurring about the same time.

The only other event of importance in these early times bearing on our subject is Fah Hian's visit to the island in A.D. 414, on his way from Ceylon to China by sea. It might perhaps be supposed that Jâva the Less, or Sumatra, was really the island he visited. It certainly was the Iabadios, or Yâvadwîpa, of Ptolemy, and just possibly the Jâva the Less of the Arab geographers and of Marco Polo;[3] but the circumstances of the voyage afford no details to point rather to this island than to Jâva proper. "In this country," he says, "Heretics and Brâhmans flourish; but the Law of Buddha is not much known."[4] As he resided there five months, and had been fourteen years in India, he knew perfectly what he was speaking about.

That there were Brâhmans in these islands before the advent of the Buddhist emigrants in the 7th century seems more than probable from the traditions about the Brâhman Tritresta or Tritâstri, collected by Sir S. Raffles[5] and others; but, if so, they were Aryan Brâhmans, belonging to some of the non-building races, who may have gone there as missionaries seeking converts, but hardly as colonists or conquerors. Indeed all over the island circles of stone are found, either wholly unfashioned or carved into rude representations of Hindû deities

[1] Sir S. Raffles' 'History of Java,' vol. ii. 8vo. edition, pp. 87 *et seqq.*; Lassen's, 'Indische Alterthumskunde,' Bd. ii. (2 Aufl.). Ss. 1059 *et seqq.*

[2] I am perfectly aware that this is not borne out by the translation of this inscription given by Dr. Friederich in vol. xxvi. of the 'Verhandelingen': but being dissatisfied with its unmeaningness, I took it to my friend, Professor Eggeling, and he fully confirms my view as above expressed.

[3] Yule's 'Marco Polo,' 2nd. ed. vol. ii. pp. 266 *et seqq.*

[4] Beal's translation, p. 169, 'Buddhist Records,' vol. i. p. lxxxi.

[5] Raffles, vol. ii. pp. 77 *et seqq.*; but see Lassen, *ut sup.*, pp. 1063 *et seqq.*

—so rude that even Ganesa can hardly sometimes be recognised; and it frequently requires an almost Hindû trustfulness to believe that these rude stones sometimes represent even Siva and Vishnu and other gods of the Hindû Pantheon.[1] It seems as if the early Brâhmans tried to teach their native converts to fashion gods for themselves, but, having no artistic knowledge of their own to communicate, failed miserably in the attempt. The Buddhists, on the contrary, were artists, and came in such numbers that they were able to dispense with native assistance, nearly, if not altogether

The next recorded event that seems to bear on our investigations is the mission of the children of Deva Kasûma to Kling or India, in order that they might be educated in the Brahmanical religion[2] This event took place in A D 914, and seems to point to a time when the Buddhist religion, as evidenced by the erection of Boro-Budur, had died out, and the quasi-Hindû temples of Prambânan and Singasari had superseded those of the Buddhists Those at Prambânan are said to have been completed in A.D. 1097, which seems an extremely probable date for the Chandi Sewu or "1000 temples" From that period till the beginning of the 15th century, the series of monuments — many of them with dates upon them[3] — are tolerably complete, and there will be no difficulty in classifying them whenever the task is fairly undertaken.

At this time we find the island divided into two kingdoms, one, having its capital at Pajajaram, about 40 miles east of Batavia, occupied the whole of the western or Sunda part of the island The Sundas, however, were not a building race, and the portion occupied by them need not be again referred to here. It contains no buildings except the rude Hindû remains above referred to

The eastern portion of the island was occupied by the kingdom of Majapahit, founded, apparently, about the year 1300. It soon rose to a higher pitch of power and splendour than any of the preceding kingdoms, and the capital was adorned with edifices of surpassing magnificence, but mostly in brick, so that now they are little more than a mass of indistinguishable ruins. When, however, it had lasted little more than a century, Muhammadan missionaries appeared on

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[1] About half of the earlier photographs of the Batavian Society are filled with representations of these rude deities, which resemble more the images of Easter Island than anything Indian.

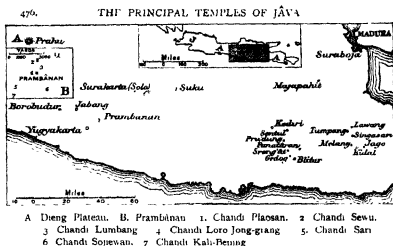
[2] Raffles, 'History of Java,' vol. II p. 93

[3] The compilers of the catalogue of the photographs of the Batavian Society use 53 instead of 78 or 79 as the factor for converting Saka dates into those of the Christian Era As, however, Brumund, Leemans, and all the best modern authors use the Indian Index, it is here adhered to throughout.

the island, and gradually—not by conquest or the sword, but by persuasion—induced the inhabitants of the island to forsake the religion of their forefathers and adopt that of the Arabian Prophet. In the year 1479 the Muhammadans had become so powerful that the city of Majapahit was taken by them by storm, and the last Hindû dynasty of the island overthrown, and those that remained of the foreign race driven to take refuge in the island of Bali.[1]

Then occurred what was, perhaps, the least-expected event in all "this strange eventful history." It is as if the masons had thrown away their tools, and the chisels had dropped from the hands of the carvers. From that time forward no building was erected in Jâva, and no image carved, that is worth even a passing notice. At a time when the Muhammadans were

476. THE PRINCIPAL TEMPLES OF JÂVA

A Dieng Plateau. B. Prambânan 1. Chandi Plaosan. 2 Chandi Sewu. 3 Chandi Lumbang 4 Chandi Loro Jong-grang 5. Chandi Sari 6 Chandi Sojiewan. 7 Chandi Kali-Bening

adorning India with monuments of surpassing magnificence no one in Jâva thought of building either a mosque, or a tomb, or a palace that would be deemed respectable in any second-class state in any part of the world.

For nearly nine centuries (A.D. 603-1479) foreign colonists had persevered in adorning the island with edifices almost unrivalled elsewhere of their class, but at the end of that time, as happened so often in India, their blood had become diluted, their race impure, their energy effete, and, as if at the touch of a magician's wand, they disappear. The inartistic native races

[1] These latter dates are taken from Raffles and Crawfurd, but as they are perfectly well ascertained, no reference seems needful.

resumed their sway, and art vanished from the land, never, probably, again to reappear.

BORO-BUDUR.

There may be older monuments in the island of Jâva than Boro-Budur, but, if so, they have not yet been brought to light. The rude stone monuments of the western or Sunda end of the island may, of course, be older, though I doubt it; but they are not architectural, and of real native art we know nothing.

When Sir S. Raffles and J. Crawfurd wrote their works, no means existed of verifying dates by comparison of styles, and it is, therefore, little to be wondered at if the first gives A.D. 1360,[1] and the second A.D. 1344[2] as the date of this building. The former, however, was not deceived by this date, inasmuch as at page 67 he says, "The edifices at Singasari near Malang were probably executed in the 8th or 9th century. They nearly resemble those of Prambânan and Boro-Budur. It is probable the whole were constructed about the same period, or within the same century; at any rate, between the 7th and 9th century of the Christian Era." This, perhaps, errs a little the other way. Heer Brumund, on historical grounds, places Boro-Budur "in the 9th, perhaps even in the 8th century of the Christian Era."[3] On architectural grounds I would almost unhesitatingly place it a century earlier. The style and character of its sculptures are so nearly identical with those of the latest caves at Ajantâ (No. 26, for instance), and in the western Ghâts, that they look as if they were executed by the same artists, and it is difficult to conceive any great interval of time elapsing between the execution of the two. If I am correct in placing the caves in the first half of the 7th century, we can hardly be far wrong in assigning the commencement, at least, of the Javan monument to the second half of that century. This being so, I am very much inclined to believe that Boro-Budur may be the identical seven-storeyed vihâra, mentioned by Âditya-dharma in his inscription at Menankabu.[4] Its being found in Sumatra does not appear to me to militate against this view. Asoka's inscriptions are found in Gandhâra, Saurâshtra, Mysore, and Orissa, but not in Bihâr. At home he was known: but it may be that he desired to place a permanent record of his greatness in the remote portions of his dominions. The date

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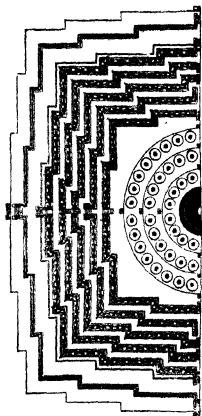
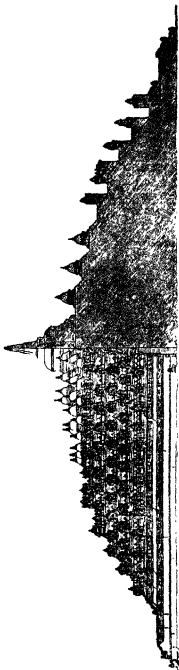
[1] 'History of Java,' vol. ii. p. 85.

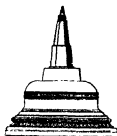
[2] 'Dictionary of Indian Archipelago,' p. 66.

[3] 'Boro-Boudour,' par Dr. C. Leemans Leyden, 1874, p. 506 (French translation, p. 536).

[4] *Ante*, p. 419. Also 'Verhandelingen, etc., vol. xxvi. pp. 31 *et seqq*. One of his inscriptions—the fourth—was found in Jâva proper.

477. Half-plan of Temple of Boro-Budur. (From a Plate in the second edition of Sir Stamford Raffles' 'History of Java.') Scale 100 ft. to 1 in.

478. Elevation and Section of Temple of Boro-Budur. (From an unpublished Plate intended for Sir Stamford Raffles' 'History of Java.')

of the inscription, A.D. 656, accords so exactly with the age I would assign to it from other sources, that it may at least stand for the present. Of course, it was not completed at once, or in a few years. The whole group, with Chandi Pawon and Mendut, may probably extend over a century and a half—down, say, to A.D. 800, or over the whole golden age of Buddhism in the island.

It certainly is fortunate for the student of Buddhist art in India that Boro-Budur (Woodcuts Nos. 477 and 478) has attracted so much attention; for, even now, the four folio volumes of plates recently devoted to its illustration do not contain one figure too many for the purpose of rendering its peculiarities available for scientific purposes: the fact being that this monument was erected just at the time when the

479 Section of one of the smaller Domes at Boro-Budur.

480 Elevation of principal Dome at Boro-Budur (From Sir S Raffles' 'History of Java.')

Buddhist system attained its greatest development, and just before its fall. It thus contains within itself a complete epitome of all we learn from other sources, and a perfect illustration of all we know of Buddhist art or ritual. The thousand years were complete, and the story that opened upon us at Bharaut closes practically at Boro-Budur.

The fundamental formative idea of the Boro-Budur monument is that of a dâgaba with five procession-paths. These, however, have become square in plan instead of circular; and instead of one great domical building in the centre we have here seventy-two smaller ones, each containing the statue of a Buddha (Woodcut No. 479), visible through an open cage-like lattice-work; and one larger one in the centre, which was quite solid externally (Woodcut No. 480), but had a cell in its centre, which may have contained a relic or some precious object. There is, however, no record of anything being found in it when it was broken into. All this is, of course, an immense development beyond anything we have hitherto met with, and a sort

of half-way house between the majestic simplicity of the Abhayagiri at Anurâdhapura, and the somewhat tawdry complexity of the pagoda at Mingûn (Woodcut No 448).

With the idea of a dâgaba, however, Boro-Budur also combines that of a vihâra, such as that illustrated by Woodcuts Nos. 89, 90. There the cells, though only copied solid in the rock, still simulated the residences of the monks, and had not yet advanced to the stage we find in the Gandhâra monasteries, where the cells of monks had become niches for statues. Here this is carried further than in any example found in India. The cells of the Mâmallapuram example are here repeated on every face, but essentially as niches, and are occupied by 436 statues of Buddha, seated in the usual cross-legged attitude. In this respect Boro-Budur is in advance of the Takht-î-Bahai, which is the monument in India that most nearly approaches to it in mythological significance So great, indeed, is the similarity between the two, that whatever date we assign to the one drags with it that of the other. It would, indeed, be impossible to understand how, in the 7th century, Buddhism had been so far developed towards the modern Nepalese and Tibetan systems if we had not these Gandhâra monasteries to fall back upon. On the other hand, having so similar a Buddhist development in Jâva in the 7th century, it seems difficult to separate the monuments of the north-west of India from it by any very long interval of time

As will be observed from the plan and elevation (Woodcuts 477, 478, page 423), the monument may be described either as a seven or a nine-storeyed vihâra, according as we reckon the platform on which the seventy-two small dâgabas stand as one or three storeys. Its basement measures over 400 ft across, but the real temple is only 300 ft. from angle to angle either way. It is not, however, either for its dimensions or the beauty of its architectural design that Boro-Budur is so remarkable, as for the sculptures that line its galleries. These extend to nearly 5,000 ft.—almost an English mile—and as there are sculptures on both faces, we have nearly 10,000 lineal ft. of bas-reliefs; or, if we like to add those which are in two storeys, we have a series of sculptures, which, if arranged consecutively in a row, would extend over nearly 3 miles of ground. Most of them, too, are singularly well preserved; for when the Javans were converted to Muhammadanism it was not in anger, and they were not urged to destroy what they had before reverenced; they merely neglected them, and, except for earthquakes, these monuments would now be nearly as perfect as when first erected.

The outer face of the basement, though extremely rich in architectural ornaments and figure-sculptures, is of comparatively

little historical importance. The first enclosed — or, as the Dutch call it, the second—gallery is, of all the five, the most interesting historically. On its inner wall the whole life of *S*âkyamuni is portrayed in 120 bas-reliefs of the most elaborate character. The first twenty-four of these are occupied with scenes in the Tusita heavens, or events that took place before the birth. In the twenty-fifth we have Mayâ's dream, depicted exactly as it is at Bharaut or Sânchi, 800 or 900 years earlier. In the following sculptures it is easy to recognise all the familiar scenes of his life, his marriage, and domestic happiness, till he meets the four predictive signs; his subsequent departure from home, and assumption of the ascetic garb; his life in the forest; his preaching in the Deer-garden at Benares—the whole Lalita Vistara, in short, portrayed with very few variations from the pictures we already possess from Gandhâra to Amarâvatî, with this singular exception: in all Indian examples the birth and the Nirvâna are more frequently repeated than any other events; for some reason, not easily guessed, they are omitted here, though all the events that preceded and followed them are minutely detailed.[1] Below these bas-reliefs depicting the life of Buddha is an equally extensive series of 120 bas-reliefs of subjects taken from the Jâtaka, all of which may be easily identified.

In the three galleries above this Buddhism is represented as a religion. Groups of Buddhas—three, five, or nine—are repeated over and over again, mixed with Bodhisattwas and saints of all sorts. Among these, the five Dhyâni, Buddhas are conspicuous in all, perhaps more than all, the variety of manifestations which are known in Nepâl and Tibet, which, as Lassen points out, almost inevitably leads to the conclusion that this form of faith was introduced from Nepâl or Western Tibet.[2]

Whether this is exactly so or not, no one probably who is familiar with Buddhist art in its latest age on the western side of India will probably doubt that it was from these parts that the builders of Boro-Budur migrated. The character of the sculptures, and the details of the ornamentation in Cave 26 at Ajantâ, and 17 at Nâsik, and more especially in the later caves at Kanheri in Salsette, at Kondivtê, Mâgâthânâ, and other places in that neighbourhood, are so nearly identical with what is found in the Javan monument, that the identity of the workman-

[1] All these, or nearly all, have been identified by Dr. Leemans in the text that accompanies the plates See also Pleyte, 'Die Buddha-legende in den Sculpturen des tempels von Boro-Boedoer,' 1901; Foucher, 'Notes d'Archéologie Bouddhique' in 'Bull. de l'École Française d'extrême-Orient' tom. ix. 1909, pp. 1ff.

[2] 'Indische Alterthumskunde,' vol. iv. p. 467.

ship is unmistakable. It is true we have no monument in that part of India to which we can point that at all resembles Boro-Budur in design, but then it must be borne in mind that there is not a single structural Buddhist building now existing within the limits of the cave region of Western India. It seems absurd, however, to suppose that so vast a community confined themselves to caves, and caves only. They must have had structural buildings of some sort in their towns and elsewhere, but scarcely a fragment of any such now exists, and we are forced to go to Gandhâra, in the extreme north-west, for our nearest examples. As already pointed out, there are many points of similarity between Jamâlgarhi, and more especially between Takht-î-Bahai and Boro-Budur; and if any architect, who was accustomed to such work, would carefully draw and restore these northern monasteries, many more might become apparent.[1] We know enough even now to render this morally certain, though hardly sufficient to prove it in the face of much that may be brought forward by those who care to doubt it. Meanwhile, my impression is, that if we knew as much of these Gandhâra monasteries as we know of Boro-Budur, we could tell the interval of time that separated them, probably within half a century at least.

Stretching such evidence as we at present have, as far as it will bear, we can hardly bring the Takht-î-Bahai monastery within one century of Boro-Budur. It may be two — and Jamâlgarhi is still one or two centuries more distant in time. But, on the other hand, if we had not these Gandhâra monasteries to refer to, it would be difficult to believe that the northern system of Buddhism could have been so completely developed, even in the 8th century, as we find it at Boro-Budur. It is this wonderful progress that has hitherto made the more modern date of that monument probable—it looks so much in advance of anything we know of in Indian Buddhism. But all this we must now revise by the light these Javan monuments throw on the subject.

Being nearly a pyramid, situated on the summit of a hill, there were no constructive difficulties encountered in the erection of Boro-Budur, and it is consequently no wonder that it now remains so entire, in spite of its being, like all Javan buildings, erected wholly without mortar. It is curious to observe, however, how faithfully its architects adhered to the Indian superstition regarding arches. They did not even think it necessary to cut off the angles of the corbel-stones, so as to

[1] General Cunningham's drawings are not enough for any one who is a stranger to the subject.

built between A.D. 750 and A.D. 800. It shows, too, a progress in design at a time when Buddhist art in India was marked by decay; and it exhibits such progress in mythology, that though there can be no doubt as to the purity of the Buddhism of Boro-Budur, any one might fairly argue that this temple belonged either to that religion or to Hinduism. It is in fact one of those compromises that in India might be called Jaina; in other words, one of those transitional examples of which we have many in Jâva, but the want of which leaves such a gap in our history of architecture in India.[1]

Close to Chandi Mendut is another small temple of similar design known as Chandi Pawon;[2] it is raised on a platform 28 ft. square and 5 ft. 6 in. high. The plan of the temple is cruciform, being 17 ft. in its extreme dimension, and when perfect was probably about 30 ft. high. It was apparently surmounted by two storeys with eight miniature dâgabas above the ground storey and a large dâgaba forming the summit.

DIENG PLATEAU.

About 35 miles to the north of Boro-Budur is a group of temples on the tableland at the foot of Mount Prahu. They consist only of simple sanctuaries and are not remarkable for the beauty of their details when compared with those of the buildings we have just been describing: but they are interesting to the Indian antiquary, because they are Indian temples pure and simple and dedicated to Indian gods. So far, we feel at home again; but what these temples tell us further is, that if Jâva got her Buddhism from Gujarât and the mouths of the Indus, she got her Hindûism from Telingana and the mouths of the Krishnâ. These Dieng temples do not show a trace of the curved-lined *s*ikharas of Orissa or of the Indo-Aryan style. Had the Hindûs gone to Jâva from the valley of the Ganges, it is almost impossible they should not have carried with them some examples of this favourite form. It is found in Burma and Siam, but no trace of it is found anywhere in Jâva.

Nor are these temples Dravidian in any proper sense of the word. They are in storeys, but not with cells, nor any reminiscences of such; but they are Chalukyan, in a clear and direct meaning of the term. The building most like these Javan temples illustrated in the preceding pages is that at Buchhanapalli (Woodcut No. 254), which might pass without remark in Jâva if deprived of its peristylar portico. It, however,

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[1] Rapporten van de Commissie Nederlandsch-Indie' 1903, p. 64, and plates 46-58; 'De Tjandi Mendoet,' door B. Kersjes en C. Den Hamer (with 28 plates), 1903.

[2] *Ibid.* pp. 73ff. and plates 59-61.

ten, the keystones are adorned with a mask, as in this last example.

About two and a half miles from Boro-Budur is a small temple of a different class known as Chandi Mendut. It stands on a platform 11 ft. high, measuring 71 ft. wide and 83 ft. deep The temple itself is cruciform, measuring 29 ft. 6 in. wide and 41 ft 7 in. deep, the porch projecting more than is usual. This temple preserves its stone roof, the cell is 23 ft. square inside and at a height of 13 ft. from the pavement horizontal courses of stone, thirty-seven in number and 28 ft in height projecting one in front of the other, from an inverted pyramid of steps which is terminated by a hollow cone Externally the roof still rises to a height of about 50 ft. above the platform, and consisted probably of three storeys with a series of twenty-four miniature pagodas round the lower storey, sixteen around the second storey, eight round the third half sunk in an octagonal wall, being crowned with a larger dâgaba. The walls are decorated with bas-relief figures of Hindû deities, groups of three or five in the larger central panels and single figures in the side panels all under canopies of slight projection. The sides of the platform are carved with figures and ornament in a series of panels Inside the cell are three colossal figures about 11 ft. high each. The central one is Buddha, curly-headed of course, and clad in a diaphanous robe The two other colossi, having only two arms each, are almost certainly intended for Bodhisattwas. These three may have been placed in the cells at a later date. On one of the faces, externally, is Lakshmî, eight-armed, seated on a lotus, with attendants. On another face is a figure, four-armed seated cross-legged on a lotus, the stem of which is supported by two figures with seven-headed snake-hoods. It is in fact a slightly altered repetition of a group inserted among the older sculptures on the façade of the cave at Kârlê That insertion I have always believed to be of the 6th or 7th century, this group is certainly slightly more modern. The curious part of the matter is, that the Mendut example is so very much more refined and perfect than that at Kârlê The one seems the feeble effort of an expiring art, the Javan example is as refined and elegant as anything in the best ages of Indian sculpture. The same remarks apply to the sacred tree under which the figure is seated. Like all the similar conventional trees at Boro-Budur, they are complicated and refined beyond any examples known in India.

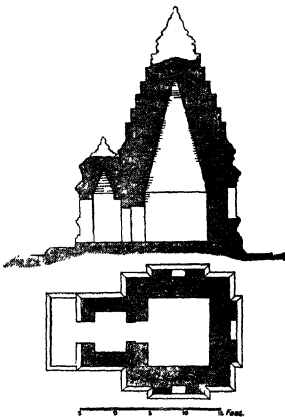
The great interest, however, of this little temple arises from the fact that it almost certainly succeeded immediately to Boro-Budur. If it is correct to assume A.D. 650-750 as the period during which that temple was erected, this one must have been

PLATE XLIX

Chandi Bhima

[*To face page* 431, Vol. II

like all the Chalukyan Temples we know of in India, especially in the Nizam's territory, is subsequent to the 10th, most of them belonging to the 13th century.

The most important and best preserved of these Dieng Plateau temples is the Chandi Bhîma in Plate XLIX. It is square on plan, with a projecting porch on the west side, and is surmounted by a series of five storeys, each set back so as to constitute a pyramidal roof, which is in accord with the interior construction, consisting of horizontal courses of stone corbelled out each in front of the course below till they meet at the top. It might be noted here, that decoration of the storeys as they rise diminishes in scale so as to increase the apparent height. The summit was probably covered with the lotus plant, of which examples are shown in bas-relief sculptures.

482. Plan and Section of Temple of Chandi Bhîma.

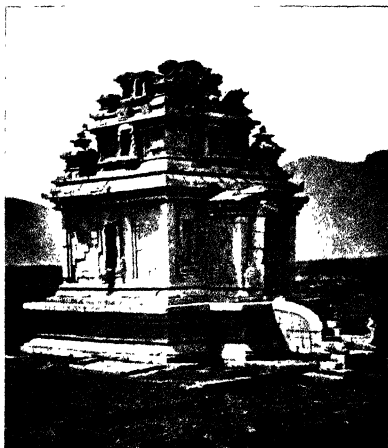
On each of the storeys are sunken niches with figures of Buddha in them,[1] three niches on each side of the two lower storeys, one niche in each centre above and at the angles of the third storey, and a lotus finial, probably a small replica of the crowning feature of the temple.

[1] Van le Coq, found at Turfan, in Chinese Turkestan, an example of a temple of precisely similar design, but built in brick—there also were five storeys each *in situ* with niches which had once contained figures of Buddha.

What is most remarkable in this temple of Bhîma is its classic character. The ogee mouldings and their decoration, the corbel bed-mould of the principal cornice and the swags underneath and the egg and tongue mouldings round the niches, are all direct transcripts from classic sources, such as those of Gandhâra. That which, however, is not in accordance with classic design is the cutting of the doorway through the mouldings of the podium; this in a more recent example, the Chandi Arjuna (Plate L.), is avoided, the doorway being reached by a short flight of steps below, and curved stone rails terminated with rising Nâga heads.

It is a remarkable fact that in the temples of Jâva there is not a single example of a pier or column. When we think of the thousands that were employed by the Dravidians in the south of India, and the Jains in the north-west, it is curious they escaped being introduced here. The early style of Orissa, as mentioned above, is nearly astylar, but in the Jâva temple this is absolutely so, and, so far as I know, is the only important style in the world of which this can be predicated. What is not so curious, but is also interesting, is, that there is not a true arch in the whole island. In the previous pages, the Hindû horror of an arch has often been alluded to, but then they frequently got out of the difficulty by the use of wood or iron. These materials, however, do not seem to have been used in any Javanese temple, though the wooden origin of many of the decorative features can clearly be traced in them Thus the pilaster strips which flank the doorways and the dwarf pilasters dividing the sculptured panels of the temple podium or platform are all enriched with boldly moulded capitals, bases, and central bands, evidently derived from wooden piers or columns. The bas-reliefs also at Boro-Budur (Plate LI.) and elsewhere abound in representations of pagodas and small houses, in which both the pier and column are clearly shown carrying wooden superstructures, and in some cases an upper storey with timber roof, carried aloft on a series of moulded piers or columns. Although, therefore, in the temples of Jâva all the architecture is in stone the decorative features are largely derived from secular buildings in timber

It may also be mentioned here, while describing the negative characteristics of Javan art, that no mortar is ever used as a cement in these temples. It is not that they were ignorant of the use of lime, for many of their buildings are plastered and painted on the plaster, but it was never employed to give strength to construction. It is owing to this that so many of their buildings are in so ruinous a state. In an island where

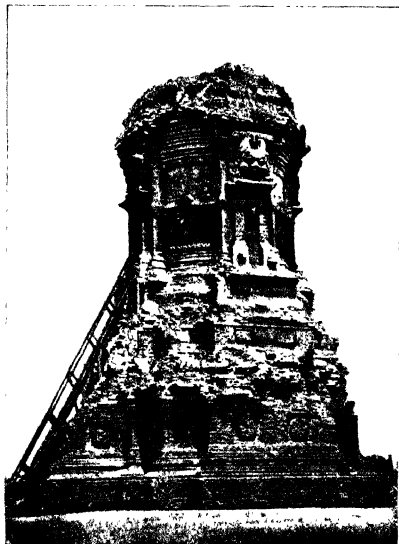
PLATE I

Chandi Arjuna

[To face page 432, Vol II

PLATE II.

Bas-reliefs from Boro-Budur

[*To face page* 432, Vol II

PLATE LII.

Chandi Jabang

[*To face page* 433, Vol II.

earthquakes are frequent, a very little shake reduces a tall temple to a formless heap in a few seconds. If cemented, they might have been cracked, but not so utterly ruined as they now are.[1]

Be this as it may, the temple architecture of Jâva is probably the only one of which it can be said that it reached a high degree of perfection without using either columning, or arches, or mortar in any of its buildings.

CHANDI JABANG.

About 18 miles due east of Boro-Budur is a temple known as Chandi Jabang (Plate LII.) the plan of which is circular, with rectangular projecting bays facing the cardinal points, and raised on a lofty substructure consisting of a double podium, square on plan, with projections in the centre of each face. Above the cell were probably five storeys, of which parts of the two lower ones only remain. In front of each bay are projecting doorways enriched with sculpture and surmounted by a huge gorgon mask. The lower podium is richly carved, with a running frieze representing lions with serpent's tails along the upper part of the plinth. The entrance doorway faced west and was approached by an extremely steep flight of steps, now much ruined. The merging of the upper circular portion of the structure into the lower rectangular substructure is a remarkably fine piece of design which, omitting the gorgon masks, might pass as a classical conception of exceptional quality.

PRAMBÂNAN.

South of Chandi Jabang, and about 24 miles south-east of Boro-Budur, is a group of temples marking the old Hindû capital of the island which are almost as interesting as that great temple itself. The more important of these have all been measured in the last few years, and their plans and elevations illustrated, with conjectural restorations in some cases, and numerous photographs. The most important group seems to be that of Loro Jonggrang, close to Prambânan (the ancient Mendang Kamûlan), which consisted of a central enclosure, about 360 ft. square with six temples in two rows, the central temple in the rear being much larger than the other five. There is also an outer enclosure about 720 ft. square and between the two, but in close proximity to the central enclosure, 156 small temples or cells in three rows round the same. The principal temple measures 41 ft. square with projecting bays on

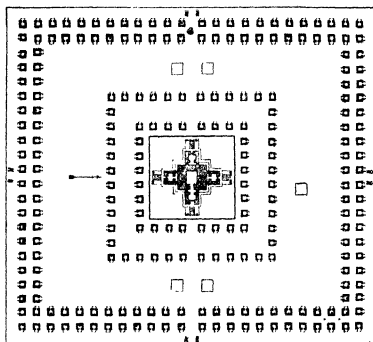
[1] Yule, in 'Journal of the Asiatic Society of Bengal,' vol. xxxv. p. 3

each side, three of which are subsidiary cells and the fourth an entrance porch to the central cell, the whole being raised on a podium about 4 ft. high with terrace round and projecting bays following the cruciform plan of the temple and approached by flights of steps in the centre of each side. The sides of the podium are enriched with fine figure sculpture, as also the plinth, of the temple, the upper portion of which above the lintel of the chief doorway is gone. The five other temples, though smaller, are of similar design, and they would all have seemed at one time to have had statues in them representing Brahmâ, Vishnu, *S*iva, and others, two of them, Sûrya and Chandra, being raised on bases carried by bulls. Midway between the two outer temples are what would seem to be tanks, cruciform on plan, consisting of parapets about 3 ft. high, which are sculptured on the inside. The 156 temples in the outer enclosure are all similar in design, consisting of a square cell with porch always facing outwards. The whole group may be of the age of Deva Kasûma, or the beginning of the 10th century, and are possibly not the earliest Hindû temples here.

The most important example of the Prambânan temples is that situated about one-third of a mile north of Loro Jonggrang, and known as the Chandi Sewu or "thousand temples," which is, or was when complete, only second to Boro-Budur in interest. The general character of Chandi Sewu will be understood from the plan (Woodcut No. 483), which shows it to have consisted of a central temple of large size surrounded by a great number of small detached cells, each of which contained statues, of which twenty-two remain still *in situ*.[1] The central cell of the temple measures 45 ft. square, and with the four attached cells, one of which served as the entrance porch to the central cella, it formed a cross 85 ft. each way, the whole being raised on a richly ornamented square podium or base. This building is richly and elaborately ornamented with carving, but with a singular absence of figure-sculpture, which renders its dedication not easy to be made out; but the most remarkable feature of the whole group is the multitude of smaller temples which surround the central one, 240 in number. Immediately outside the square terrace which supports the central temple stand twenty-eight of these—a square of eight on each side, counting the angular ones both ways. Beyond these, at a distance of 35 ft., is the second square, forty-four in number; between this and the next row are wide spaces of 72 ft. on the east and west and 102 ft. on the north and south sides. The two outer rows of temples are situated close to

[1] Shown on the plan by black dots.

one another, back to back, they are 168 in number, and form a rectangle measuring 525 ft. by 467 ft. All these 240 temples are similar to one another, about 12 ft. square at the base, and 22 ft. high, all richly carved and ornamented, and in every one is a small square cell, in which was originally placed a cross-legged figure.

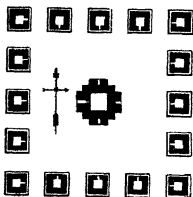
When looked a little closely into, it is evident that the

483. Plan of the Chandi Sewu, Prambânan. Scale 150 ft. to 1 in.

Chandi Sewu is neither more nor less than Boro-Budur taken to pieces, and spread out, with such modifications as were necessary to adapt it to the position

Instead of a central dâgaba, with its seventy-two subordinate ones, and its five procession-paths, with their 436 niches containing figures of Buddha, we have here a central cell, with entrance porch and three subordinate ones, each containing no doubt similar images, and surrounding these, 240 cells containing images arranged in four rows, with paths between, but not

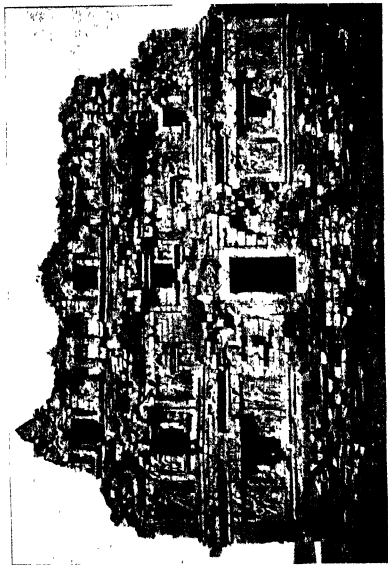
joined together with sculpture-bearing screens, as in the earlier examples, nor joined side by side with the sculpture on their fronts, or inside, as was invariably the case in similar temples in Gujarât of the same age.

Sir Stamford Raffles gives A.D. 1098 for the completion of this temple, which, from the internal evidence, I fancy cannot be far from the truth. It would, however, be extremely interesting if it could be fixed with certainty, as these Javan monuments will probably be found to be the only means we have of bridging over the dark ages in India.

Meanwhile in the last ten years other examples in the district have been measured and illustrated. Midway between Sewu and Loro Jonggrang is a smaller group, Chandi Lumbang (Woodcut No. 484), with a central temple surrounded by sixteen cells, each of which is supposed to have contained an image—Buddha—or Śiva, according to the dedication of the central cell.

484. Chandi Lumbang, near Prambânan. (From a Drawing at the India Office.) No scale.

Three quarters of a mile east of Chandi Sewu is another remarkable temple known as Chandi Plaosan, which consists of four enclosures side by side, measuring 328 ft. deep, from back to front. In the centre enclosure are two smaller ones with a triple cell temple in each, 62 ft. wide by 36 ft. deep, with central porch facing east, projecting 13 ft. and surrounded with a triple row of 180 cells, the two outer rows circular on plan, the inner row and those at the angles being square. This central enclosure measures 450 ft. wide. The second enclosure on the left (south side) is 200 ft. wide, with sixty-eight cells, all circular on plan, triple rows back and front, and single rows on the sides; in the centre is a platform, 68 ft. square, with traces of a portico or verandah round. Nothing has been found in the third enclosure on the north or right hand side, but in the one beyond is a square platform in centre, with triple row of forty-eight circular cells at the back and sides and a double row of sixteen square cells in front. In the temple are many fine statues of Dhyâni Buddhas in almost perfect preservation, eight of which are published in Ijzerman's work already referred to.[1]

[1] 'Beschrijving der Oudheden nabij de Soerakarta en Djogdjakarta,' pp. 93-107, and plates G.-K.

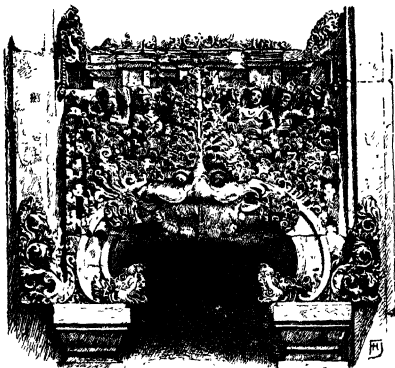
PLATE LIII.

Chandi Sari

[*To face page* 437, Vol II

Another triple cell structure about a mile south-west of Prambânan is that of Chandi Sari, which from its design and decoration Sir T. Stamford Raffles conceived to be a palace; other writers consider it to have been the monastery of a temple half a mile south, known as Chandi Kali - Bening, near Kalasan. Either way, as will be seen from the illustrations (Plate LIII. and Woodcut No. 485), it is a very remarkable building of two storeys and an attic. The timber floors were carried on the stone corbelling, shown in section, being reached probably by wooden staircases now gone. The most interesting portion in the elevation is the attic storey with the dormer windows, the earliest examples of that feature. The structure measures 54 ft. frontage by 31 ft. deep; the ground storey was about 12 ft. 6 in. high and the upper storey 9 ft., the whole being raised on a basement 7 ft. 7 in. high, the total height to the top of the original stone roof being about 40 ft. There were two windows on each storey of the side elevation, the examples in the rear being deep sunk niches only, and three dormers and on the back or west front: the windows of the ground storey were all closed with solid masonry.

485. Plan and section of Chandi Sari.

As it has retained its stone roof with sufficient remains of its rich decoration to allow of the conjectural restoration in Ijzerman's work, Chandi Kali-Bening is probably the best preserved temple in Jâva. Its plan is cruciform like those of Loro Jonggrang and Sewu, with central cell and porch and three other cells, the entrance width each way being 66 ft. The height to the top of the principal cornice which runs at the same level round porch, central square, and side cells is 33 ft.,

including a plinth 6 ft. high. It is surmounted by three storeys set back one behind the other, the lower one 11 ft. 5 in., the

486 At Chandi Kali-Bening, near Kalasan (From a Photograph.)

next 14 ft 9 in, and the upper one 13 ft., these were probably crowned with a dâgaba about 22 ft. high, giving a total height of about 72 ft. The general design of the lower portion of the building is shown in the illustration of the porch (Plate LIV.), the upper storeys were decorated with rich canopied niches, each containing a statue of Buddha like those flanking the central doorway, with twenty-four miniature dâgabas surmounting the first storey, sixteen the second storey and eight the third storey, and these grouped round the great central dâgaba must have produced an exceptional effect. The gorgon head over the side doorways is shown in Woodcut No. 486.

About 150 yards south of Kali-Bening Sir T. Stamford Raffles came across the remains of an ancient building, of which he gives the plan; it consisted of a central hall surrounded by a portico or verandah, the whole carried by thirty-six square

PLATE LIV.

Chandi Kali-Bening.

[*To face page* 438, Vol II

piers of the same size. The extreme dimensions were 73 ft. east and west by 53 ft. north and south, and it was raised on a platform with three steps. Sir T. Stamford Raffles came to the conclusion that this building might have been a Hall of State, in which case it is almost the only example of a secular building of which the plan still remains.

SUKU.

At a place called Suku, not far from Mount Lawu, near the centre of the Island, there is a group of temples, which, when properly illustrated, promises to be of great importance to the history of architecture in Jâva.[1] They are among the most modern examples of the style, having dates upon them of A.D. 1435 and A.D. 1440,[2] or less than forty years before the destruction of Majapahit and the abolition of the Hindû religion of Jâva. So far as can be made out, they are coarser and more vulgar in execution than any of those hitherto described, and belonged to a degraded form of the Vaishnava religion. Garuda is the most prominent figure among the sculptures; but there is also the tortoise, the boar, and other figures that belong to that religion.

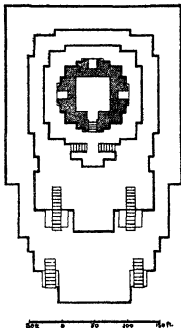
The principal temple, of which an illustration is given in Sir T. Stamford Raffles' work,[3] consists of a truncated pyramid raised on the top of three successive terraces. Its base is 43 ft. 6 in. square which, as it rises, decreases in size to about 22 ft., and it is constructed of horizontal stone courses forming steps to the height of 19 ft.; on the top is a boldly moulded podium or platform 4 ft. 9 in. high, with a projecting wing in the centre on the western side, in front of which is a narrow flight of steps down the side of the pyramid enclosed between stone curbs. On the top of the wing are two serpents, but otherwise the whole building is plain and unornamented with sacred emblems.

The most interesting feature connected with the remains at Suku, is their extraordinary likeness to the contemporary edifices in Yucatan and Mexico. It may be only accidental, but it is unmistakable. No one, probably, who is at all familiar with the remains found in the two provinces, can fail to observe it, though no one has yet suggested any hypothesis to account for it. When we look at the vast expanse of ocean that stretches between Jâva and Central America, it seems impossible to conceive that any migration can have taken place eastward—

[1] Sir S. Raffles' 'History of Java,' plates 31 and 61, vol ii. pp. 49 *et seqq.*
[2] Crawfurd, 'Dict. Indian Archipelago,' *sub voce.*
[3] 'History of Java,' Plate XXXI.

say after the 10th century—that could have influenced the arts of the Americans; or, if it had taken place, that the Javans would not have taught them the use of alphabetical writing, and of many arts they cultivated, but of which the Americans were ignorant when discovered by the Spaniards. It seems equally improbable or impossible that any colonists from America could have planted themselves in Jâva so as to influence the arts of the people. But there is a third supposition that may be possible, and, if so, may account for the observed facts. It is possible that the building races of Central America were of the same family as the native inhabitants of Jâva. Many circumstances lead to the belief that the inhabitants of Easter Island belong to the same stock, and, if this is so, it is evident that distance is no bar to the connection. If this hypothesis may be admitted, the history of the connection would be this:—The Javans were first taught to build monumental edifices by immigrants from India, and we know that their first were their finest, and also the most purely Indian. During the next five centuries (A.D. 650-1150) we can watch the Indian influence dying out; and during the next three (A.D. 1150-1450) a native local style developing itself, which resulted at last in the quasi-American examples at Suku. It may have been that it was the blood and the old faith and feelings of these two long dissevered branches of one original race that came again to the surface, and produced like effects in far distant lands. If this or something like it were not the cause of the similarity, it must have been accidental, and, if so, is almost the only instance of its class known to exist anywhere; and, strangely enough, the only other example that occurs is in respect to the likeness that is unmistakable between certain Peruvian buildings and the Pelasgic remains of Italy and Greece. These, however, are even more remote in date and locality, so the subject must remain in its present uncertainty till some fresh discovery throws new light upon it.

Passing now towards the east end of the island beyond Kediri: in the neighbourhood of Melang, are three or four temples, two of which, Chandi Jago near Tumpang and Chandi Singasari are well illustrated in the Dutch survey The plans of the platforms of these temples differ from those in the centre of the island; the staircases leading to the platforms are at one end only. In the case of Chandi Jago (Woodcut No. 487), at the west end are two flights between stone curbs on each side of a portion of the lower platform which projects 8 ft. in front of the main platform, and is 17 ft. wide. There is a similar projection to the second platform, 7 ft. wide and 4 ft. deep, with a

flight of steps on each side leading to the same, and the steps to the third platform are at right angles to the same, which has also a projecting bay 3 ft. wide and 2 ft. deep. In order to allow of these approaches, the temple is set back in the rear instead of forming the central feature of the platforms, its plan is cruciform, 17 ft. square with a cell 10 ft. square, with an entrance porch on the west side and sunk niches only on the three other sides. The upper part of the temple has fallen in, but judging by another better preserved though smaller temple close by, the Chandi Kidal, it was surmounted by five storeys set back one behind the other, giving probably a total height of about 80 ft., the actual height of the remains to the top of the doorway being 66 ft. 6 in. The sides of the platforms are decorated with carved ornament of a decadent character, the figure sculpture being clumsy and poor.

487 Chandi Jago, near Tumpang

Chandi Kidal was raised on a single platform only, and with the exception of the immense gorgon head above the doorway was not enriched with sculpture The height was probably about 40 ft., and from what remains of the upper storeys their decoration consisted of niches with figures of Bodhisattwas in them similar to those of Chandi Bhîma on the Dieng Plateau. The second temple Chandi Singasari is situated about 10 miles to the north-west of Tumpang. The temple is 26 ft. 6 in. square on plan, with a projecting porch on each face, three of them giving access to small cells 5 ft. 4 in. square, and the fourth facing the west to a vestibule preceding the central cell, which is 10 ft. 8 in. square. So far it is similar to the examples at Prambânan; over the four porches, however, according to Dr. Brandes' conjectural restoration, were towers consisting of three storeys with square moulded balusters, five on each face, carrying the storey above; each baluster has three projecting mouldings, which diminish in width as it rises, and the storeys are slightly set back one behind the other. These towers rise

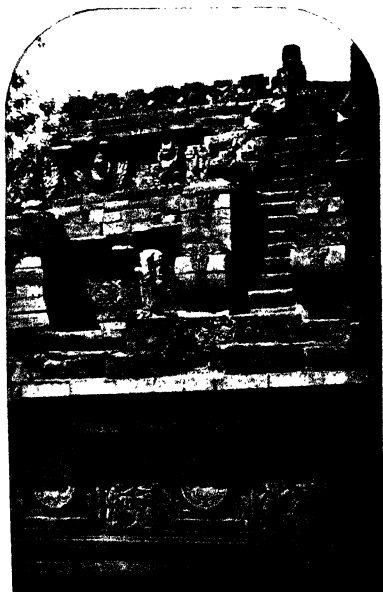
30 ft. high above the platform, the central tower over the cell is 50 ft. high, with triple storey and balusters, like those on the porches, but of increased dimensions, and all the vertical plane surfaces are elaborately carved with griffons, birds and foliage, triangular vertical pendants between the balusters and antefixæ at the angles with sculpture somewhat Greek in character. The crowning feature of all these towers resembles that which forms the summit of the illustration in Plate LVII. Fig. 1, at Blitar. The structure itself would seem to have been erected as a memorial of some kind as with two others of different design, but all placed side by side it is raised on a platform about 3 ft. high with a flight of steps in front. What is remarkable in this illustration is the almost entire absence of any carved mouldings —a series of square fillets receding or projecting constitutes the leading characteristic of its design. The platform on which the temple at Singasari rests is 5 ft. 6 in. high, and 43 ft. 6 in. square, and on the western side is an additional platform like those at Chandi Jago 13 ft. wide and projecting 16 ft 8 in. The two flights of steps to the platform rise on each side between the two platforms. With the exception of the gorgon heads on the doorway of each porch there is no other sculpture.

Returning now westward, about 6 miles east of Kediri, according to Sir T. Stamford Raffles, is a solid massive structure at Sentul, without any internal chamber, affording on its summit an extensive platform with steps of ascent on the west side, the sides and the curb walls of the steps being enriched with sculpture. Eight miles south-west of Sentul is Chandi Prudung, constructed entirely in brick, but with a plan similar to the temples already described at Prambânan and Singasari, viz., with central cell and porch and three other cells.

The most remarkable temples in the vicinity of Kediri are the two examples at Panataran, of which the annexed views (Plates LV. and LVI.) illustrate the most important. From the plan, Woodcut No. 488, and the views, it will be seen that it is virtually a three-storeyed pyramid, with flat platform at the top. The lower platform is 80 ft. square, with bastions on each side 35 ft. wide, one on the front or western face projecting 25 ft., and the other three 10 ft. only. On each side of the western projection is a flight of fourteen steps leading up to the first platform; the second platform is 65 ft. square, with three recesses instead of projections, and on the western side a central flight of ten steps leading to the second platform, and in continuation from steps rising to the upper platform, which is 34 ft. 6 in. square. The podium of the lower platform is ornamented with numerous bas-reliefs on panels, representing subjects, taken principally

Chandi Panataran

[*To face page* 442, Vol II.

PLATE LVI

Chandi Panataran

[To face page 443, Vol. II

from the Râmâyana, but many also from local legends. Each of these is separated from that next it, by a panel, with a circular medallion, containing a conventional animal, or a foliaged ornament. The bas-reliefs of the second storey are better executed, and, from their extent, more interesting; their subjects, however, seem to be all taken from local legends not yet identified. The third is ornamented by panels, with winged figures, griffons, Garudas, and flying monsters, more spirited and better executed than any similar figures are in any examples of Hindû art I am acquainted with.

488 Chandi Panataran, plan of terraces.

In the centre of the upper platform, but not shown on the plan, is a well hole which may have served in the temples at Prambânan for the deposit of relics or of the ashes of deceased priests This has been dug out and increased in dimensions below by treasure seekers. Whether at any time over this upper platform there was a superstructure of any kind is not known; Sir Stamford Raffles speaks of the remains of various foundations. On these wood columns might have rested carrying a roof, but in any case the opening was probably closed over, and formed a secret chamber, on which may have been erected an altar. The sculptured panels of the lower platform are largely illustrated in the Dutch survey, and are inferior to those of Boro-Budur, the bas-reliefs of the second platform seem to be of finer execution, judging by Kinsbergen's photographs, but there are no illustrations given of them or of the winged figures and Garudas which decorate the podium of the upper platform, or of the remarkable cresting round, which seems to have served the purpose of a balustrade.

There is a second temple at Panataran, which might from its decoration be called a serpent temple. The Batavian Society have devoted twenty-two photographs to the illustration of its sculptures, but have given no plan and no description. There is not even a general view from which its outline might be gathered, and no figure is introduced from which a scale might be guessed. Its date appears to be probably previous to A.D. 1416. The figures, however, from which this is inferred are

not on the temple itself, but on a bath or tank attached to it, though, from the character of its sculptures, it is probably coeval.[1]

The reason why it is called a Serpent temple is, that the whole of the basement-moulding is made up of eight great serpents, two on each face, whose upraised heads in the centre form the side pieces of the steps that lead up to the central building (Plate LVI., Fig. 2), whatever that was. These serpents are not, however, our familiar seven-headed Nâgas that we meet with everywhere in India and Cambodia, but more like the fierce crested serpents of Central America. The seven-headed serpent does occur very frequently among the sculptures at Boro-Budur—never independently, however, nor as an object to be worshipped, but as adorning the heads of a Nâga people who come to worship Buddha or to take a part in the various scenes represented there. Even then they are very unlike the Indian Nâga, whose hood is unmistakably that of an expanded cobra. Those at Boro-Budur and Panataran are crested snakes, like that represented in the Japanese woodcut in 'Tree and Serpent Worship,' page 56.

The sculptures on these monuments are not all of a religious or mythological character, but either historical or domestic. What they represent may easily be ascertained, for above each scene is a short descriptive inscription, quite perfect, and in a character so modern that I fancy any scholar on the spot might easily read them

Meanwhile it is curious to observe that we know of only two monuments in our whole history which are so treated, and these the earliest and the last of the great school: that at Bharaut, so often alluded to above, erected two centuries before Christ; and this one attributed to the 14th century, while the struggle with the Muhammadan religion was gathering around it that strength which, within half a century from that time, finally extinguished the religion to which it belonged.

There is one other temple of this class, at a place called Machanpontih, described by Herr Brumund as partly of brick, partly of stone, but singularly rich in ornamentation. "The sub-basement," he says, "is composed of a tortoise and two serpents; the heads of these three animals unite on the west face and form the entrance."[2]

The above is, it must be confessed, only a meagre outline of what might be made one of the most interesting and important

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[1] There are other inscriptions about this temple dated in A.D. 1197, 1319, 1320, 1347, 1369, 1373 and 1454.—'Die Volkentooneelen van Panataran' in 'Archæologisch Onderzoek,' Bd. ii. p. 14."

[2] 'Boro Boedoer,' p. 433.

PLATE LVII

Fig 1 Memorial at Blitar near Panataran

Fig 2 Temple at Panataran

[To face page 444, Vol II

chapters in the History of Indian Architecture. To do it justice, however, it would require at least 100 illustrations and 200 pages of text, which would swell this work beyond the dimensions within which it seems at present expedient to restrict it. We know all we want, or are ever likely to know, about Boro-Budur and one or two other monuments, but with regard to many of the others our information is as yet fragmentary, and in respect to some, deficient. Any qualified person might, by a six months' tour in the island, so co-ordinate all this as to supply the deficiencies to such an extent as to be able to write a full and satisfactory History of Architecture in Jâva. The Dutch have, however, far outstripped our colonial authorities, not only in the care of their monuments, but in the extent to which they have published them, and in late years many works have appeared which are filling up the gaps, so much so that the survey sketched out by Sir Stamford Raffles is now being accomplished; the appointment, also, in 1901 of an Archæological Survey under the direction of a highly qualified commission of experts, is at present advancing our information in every direction by publications that are models of exhaustive and accurate surveys.

BOOK IX.

CHINA AND JAPAN.

CHAPTER I.

CHINA.

INTRODUCTORY.

CHRONOLOGY

Event	Date
Period of Hiâ	B.C. 2205-1766
Wu Wong period of Cheu or Châw	1122-256
Confucius died	477
Chi-hoang-ti built Great Wall about	240
Si-Hân dynasty	201 (or 206)-A.D. 9
Ho-ti, seventeenth king; Buddhism introduced	*cir.* A.D. 90
Si-Tsin dynasty	265-316
Wu-tâi dynasty; China divided into two kingdoms	419
Nân-pe-châo dynasties, China divided into two kingdoms, *cir.*	A.D. 439
China reunited, capital Honan	589 or 581
Thâng dynasty	618-907
Wu-tâi dynasties	907-960
Pe-sung dynasty	960-1127
Northern China captured by Mongols	1234
Kublai Khân, Yuen dynasty	1281
Ming dynasty; Mongol expelled	1368
Ta-tsing or Manchu Tartar dynasty; now on the throne	1644

ONE of the great difficulties experienced in any description of Chinese architecture is the absence of plans of either temples, palaces, monasteries or dwellings. Within the last few years the photographic camera has lent its aid in the illustration of the great palaces at Pekin within the walls of the Forbidden City, and of the Imperial Temples north of the city, and an elaborate work has been published with over one hundred photographs taken after the siege,[1] accompanied by a short description, giving only the names of the buildings, and without a single plan or diagram to show their juxtaposition. In some cases views of the interior only are given

[1] K. Ogawa. 'Photographs of the palace buildings in Pekin.'

which might have been of service if we were dealing with buildings erected by any of the European races, but in China where the constructional arrangements are often of a very complicated nature which do not seem to have been regulated by natural laws, to evolve a plan from them is an almost impossible task. This is especially the case in the two most important circular buildings, viz.: the Temple of Heaven (the Ch'i-nien-tien Hall Heaven palace) and the Temple of the Year Star (Huang-Chiang-yen), in both of which the attempt to construct a circular domed building with materials which lend themselves only to rectangular structures has resulted in make-shifts of a very peculiar nature.

The earliest authority on the subject of Chinese architecture was Sir W. Chambers, but the illustrations in his book,[1] probably executed by an artist who had never been in China, fail to convey a true conception of the buildings now better known from photographs such as those published by M. Ogawa. Further information is given in M. E. Fonssagrives' work on the Ts'ing tombs in Si-ling,[2] in single chapters devoted to the subject by Sir R. K. Douglas,[3] M. Paleologue[4] and Dr. S. J. Bushell,[5] in an essay on Chinese architecture by Mr. E. Ashworth,[6] and from papers communicated to learned societies such as those of J. Lamprey,[7] W. Simpson,[8] and F. M. Grattan.[9] The general conclusion, however, come to after consulting the above works and those by other writers on the subject is that the buildings are not such as we might expect to find among a people whose history and whose civilisation seems so exact a counterpart of that of Egypt. In both countries we have the same long succession of dynasties with dates, extending through 3000 or 4000 years, interrupted only by shepherd invasions which in both countries lasted about five centuries, when the words of Manetho are as literally applicable to the Taeping rebellion as they are to the overthrow of the Hyksos by the uprising of the native Egyptian races. During all this long period the same patriarchal form of government prevailed in both countries—the king being not only the head of the secular government, but the chief priest of the people. Both people

[1] 'Designs of Chinese Buildings,' etc. 1757.

[2] Si-ling: Étude sur les tombeaux de l'ouest de la dynastie des Ts'ing, par E. Fonssagrives.—'Annales du Musée Guimet.' 1907.

[3] 'Society in China.' 1894.

[4] 'L'art Chinois.' 1887.

[5] 'Chinese Art.' 1904.

[6] 'Detached Essays of the Architectural Publication Society.' 1853.

[7] 'Chinese Architecture,' in 'R.I.B.A. Transactions,' vol. xvii. (1866-67) pp. 157-178.

[8] 'The Architecture of China,' in 'R.I.B.A. Transactions,' vol. xxiv. (1873-74) pp. 33-50.

[9] 'Chinese Architecture,' in 'R.I.B.A. Journal,' 3rd Series, vol. ii. (1896) pp. 37-64.

early attained a certain stage of civilisation, and maintained it without change or progress during the whole period of their existence. The syllabic symbols of the Chinese are the exact counterpart of the hieroglyphic writing of the Egyptians, as clumsy and as unlike that of any other contemporary nation, and as symbolic of their exclusive segregation from the rest of mankind. In both countries there was always the same calm contemplation of death, the same desire for an honourable funeral and a splendid tomb, and the same reverence for the dead. In these and fifty other particulars, the manners and customs of the two peoples seem identical, and the perfect parallelism only breaks down when we come to speak of their buildings. There are no tombs in China to be compared with the Pyramids, and no temples that approach those of Thebes in dimensions or in splendour.

If the Chinese were as closely allied to the Tartar or Mongolian tribes on their north-eastern frontier as is generally supposed, this difference could hardly have existed. When the inner country has been more carefully examined, it is probable that we may see cause to modify our opinion as to the architectural character of the Chinese people.

This will be especially the case if, as is highly probable, the so-called Indo-Chinese inhabitants of Cambodia are very much more closely allied in blood to the Chinese than they are to any of the races inhabiting India; since by the erection of the buildings described in a previous division of this work, the Cambodians have nobly vindicated their title to be considered as one of the great building races of the world. Considering the short time of their existence, and the limited area they occupied, they may in fact lay claim to having surpassed even the Egyptians in this respect

It will be strange if in Ho-nan and Kwang-si we do not eventually find the links which will confirm the connection of the two races of Cambodia and China, and explain what at present can only be regarded as one of the unsolved problems of architectural history.

A little well-directed industry on the spot would very soon clear all this doubt away. Meanwhile there are other minor causes which may have contributed to the absence of monumental buildings in China, and which it may be as well to allude to before proceeding further. In the first place, the Chinese never had either a dominant priesthood or a hereditary nobility. The absence of the former class is a very important consideration, because in all countries where architecture has been carried to anything like perfection, it is to sacred art that it has owed its highest inspiration, and sacred art is never

so strongly developed as under the influence of a powerful and splendid hierarchy. Again, religious and sectarian zeal is often a strong stimulus to sacred architecture, and this is entirely wanting in this remarkable people. Though the Chinese are bigoted to a greater extent than we can well conceive in all political matters, they are more tolerant than any other nation we know of in all that concerns religion. At the present moment three great religious sects divide the empire nearly equally between them. For though Buddhism is the nominal religion of the reigning family, and perhaps numbers more followers than either of the other two, still the followers of the doctrines of Confucius—the contemporary and rival of Śâkya-Sinha—are a more purely Chinese sect than the other, and hold an equal place in public estimation; while, at the present time, the sect of Lao-tse, or the Doctors of Reason, is more fashionable, and certainly more progressive, than the others.[1] Christianity too, might at one time have encroached largely on either of these, and become a very prevalent religion in this tolerant empire, had the Jesuits and Dominicans understood that the condition of religious tolerance here is a total abstinence from interference in political matters. This, however, the Roman Catholic priesthood never could be brought to understand; hence their expulsion from the realm, and the former proscription of their faith which otherwise would not only have been tolerated like all others, but bid fair to find more extensive favour than any. Such toleration is highly laudable in one point of view; but the want of fervour and energy from which it arises is fatal to any great exertions for the honour of religion.

In the same manner the want of an hereditary nobility, and indeed of any strong family pride, is equally unfavourable to domestic architecture of a durable description. At a man's death his property is generally divided equally among his children. Consequently the wealthiest men do not build residences calculated to last longer than their own lives. The royal palaces are merely somewhat larger and more splendid than those of the mandarins, but the same in character, and erected with the same ends.

There is no country where property has hitherto been considered so secure as China. Private feuds and private wars were

[1] The population of the Chinese empire is estimated at 400 millions of souls. If we estimate the Buddhists in China at 150 millions of souls and put down 50 millions for the Buddhist population of Tibet, Manchuria, Burma, Siam, Cambodia, and Ceylon, we shall probably not err greatly on the side of under-estimating them, making 200 millions the total number of followers of this religion in the whole world, or about one-eighth of the human race—not the exaggerated numbers at which they are usually estimated.

till lately unknown; foreign invasion was practically impossible, and little dreaded. Hence they have none of those fortalices, or fortified mansions, which by their mass and solidity give such a marked character to a certain class of domestic edifices in the western world. Equality, peace, and toleration, are blessings whose value it would be difficult to over-estimate; but on the dead though pleasing level where they exist, it is in vain to look for the rugged sublimity of the mountain, or the terrific grandeur of the storm. The Chinese have chosen the humbler path of life, and with singular success. There is not perhaps a more industrious or, till the late wars, happier people on the face of the globe; but they are at the same time singularly deficient in every element of greatness, either political or artistic.

Notwithstanding all this, it certainly is curious to find the oldest civilised people now existing on the face of the globe almost wholly without monuments to record the past, or any desire to convey to posterity a worthy idea of their present greatness. It is no less remarkable to find the most populous of nations, a nation in which millions are always seeking employment, never thinking of any of those higher modes of expression which would serve as a means of multiplying occupation, and which elevate while feeding the masses; and still more startling to find wealth, such as the Chinese possess, never invested in self-glorification, by individuals erecting for themselves monuments which shall astonish their contemporaries, and hand down their names to posterity.

From these causes it may be that Chinese architecture has not attracted much attention. In one respect, however, it is instructive, since the Chinese are the only people who now employ polychromy as an essential part of their architecture: indeed, with them, colour is far more essential than form; and certainly the result is so far pleasing and satisfactory, that for the lower grades of art it is hardly doubtful that it should always be so. For the higher grades, however, it is hardly less certain that colour, though most valuable as an accessory, is incapable of that lofty power of expression which form conveys to the human mind.

CHAPTER II.

CONTENTS

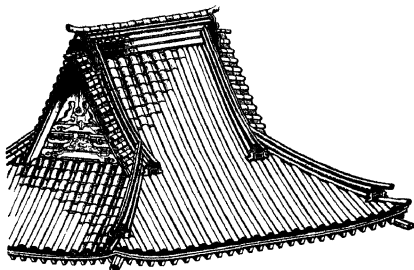
The origin and development of the Chinese temple and other structures—The materials employed in their buildings

AT one time it was thought that it might be possible with further information on the subject to describe the buildings appertaining to each of the religions, Confucian, Taoist, and Buddhist, to which they belonged, but externally the temples are nearly all of the same type, and it is only from their interior decoration and by the statues placed in them that any distinction can be made. The Muhammadan mosques, which in other countries have always developed a type of their own, are in China—all in general form—identical with the Buddhist and other temples, and can only be distinguished by their external decoration with texts from the Qorân, and are not even to be recognised by the minaret which in other countries has been their chief characteristic feature.

The same similarity in design and style of all the religious buildings obtains equally in their civil structures, there being no essential distinction between sacred and secular work, and the further we go back the closer the affinity they have to one another—the temple, the tomb and the dwelling being symbolically repetitions of each other. The general effect, in fact, of a Chinese city, as seen in a bird's-eye view is one of extreme monotony in which every building seems to be covered with the same kind of roof, differing only in dimensions, and in some cases with a more elaborate decoration—and this applies not only to the Forbidden City in Pekin, where the buildings are mainly palaces or public monuments, but to any other city of importance: this arises from the circumstance that the prevailing ordinary type of Chinese architecture is that known as the *T'ing*, which consists of a roof of concave section carried on short columns. If the roof is of great dimensions and elaborately decorated, it covers either a temple, an Imperial hall of audience, or the official residence of a mandarin, if of small size and light construction, it is that of a house; this almost universal

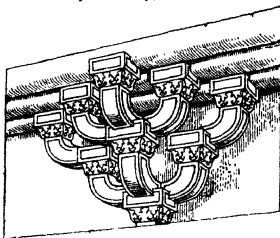
concave form of roof, as generally referred to by writers on the subject as a reminiscence of the tent of the Tartars, who are supposed to have introduced it. The authors of this theory, however, forgot that the Chinese have been longer out of tents, and know less of them, than any other people now on the face of the globe. The Tartar conquest, like our Norman one, has long been a fusion rather than a subjection, and does not seem to have produced any visible effect on the manners or customs of the original inhabitants of China. It may also be observed that the typical form of the roof of a Tartar tent was and is domical, like those represented in the Assyrian sculptures, and seldom, if ever, constructed with a hollow curve; so that the argument tells the other way. Be this as it may, the form of roof in question arose from a constructive exigence, which others would do well to imitate. In a country like China, where very heavy rains fall at one season of the year, tiled roofs, such as they almost universally use, require a high pitch to carry off the water; but the glaring sunshine of another season renders shade to walls and windows absolutely necessary. If (as on the left of the diagram No. 489) the slope of the roof is continued so far out as to be effective for the last purpose, the upper windows are too much darkened, and it is impossible to see out of them. To remedy this defect, the Chinese carry out their eaves almost horizontally from the face of the walls, where a leak becomes of slight importance; and then, to break the awkward angle caused by the meeting of these two slopes, they ease it off with a hollow curve which answers most effectually the double purpose of the roof. These projecting eaves have the further advantage of protecting the walls which—constructed in timber only—would decay rapidly if frequently deluged with rain. The protection given to the front and back walls of the house was equally required for the sides, so that the projecting eaves are carried round these; this, however, still left exposed the gable ends, in order to protect which a small pent roof of slight projection was built in under the gable. The only part of such a roof that admitted of decora-

489. Diagram of Chinese Construction.

tion was the central ridge, the hipped ridge created by the intersection of the main roof, and the projecting eaves at the sides, under these were added further developments in their origin of a constructional nature, but which, in course of time, became more or less purely decorative forms. The illustration, Woodcut No. 490, which is based upon a drawing by a native artist, will explain the typical form of roof just described. In order to accentuate and give more importance to the roof, the ridge was raised much higher, and in some cases surmounted

490 Chinese Roof, with Irimoja Gables.

by vertical pierced terra-cotta slabs, which formed a lofty cresting, and the ends of the ridge were decorated with heads of dragons or fish. On each side of the main roof, but set back about a foot from the verge, a heavy rib of tiles was carried down the roof to about two or three feet below the hip, probably to weight the roof; out of this rib the hip ridge grew, being turned up at the extreme angle. The tiles employed to cover the roof were of two kinds: flat tiles with each side turned up, and covering tiles, the lower end of both being stopped with some decorative device, constituting in the latter a kind of antefixa.

The great projection of the eaves required, however, some added support; with a light roof this could be obtained by a corbel bracket, such as is shown in Woodcut No. 489, carrying the plate on which the rafters rested. In roofs of greater size an assemblage was required, consisting of two to five brackets,

one under the other; these brackets could only be attached properly to the columns carrying the roof (generally 6 ft. apart, and sometimes more), so that additional brackets were required on each side to give further support to the horizontal beam or plates carrying the rafters. This led to a construction of which Woodcut No 491 will give some better conception; this illustration is from the Temple at Nikkô in Japan, but as there is scarcely any pattern in the latter country which has not been borrowed from China it is equally representative of either. Another peculiarity which also gives a local character to all this architecture is the method of framing a roof so unlike that of other people. In early times, and in their domestic work down to the present day, the timber most available for this purpose was either the bambu or a small pine, which, like most endogens, is soft and spongy in the inside, while the outer rings of wood are close-grained, hard, and strong: it is thus practically a hollow wooden cylinder, which, if squared to form a framing as we do, would fall to pieces, but merely cleaned and used whole, it is a very strong and durable building material, though one which requires all a Chinaman's ingenuity and neatness to frame together with sufficient rigidity for the purposes of a roof.

491 Bracket Group

The roof is usually constructed (as shown in Woodcut No. 489) by using three or four transverse pieces or tie-beams, one over the other, the ends of each beam being supported on that below it by means of a framed piece of a different class of wood. By this method, though to us it may look unscientific, they make up a framing that resists the strongest winds uninjured.

Of course the theory here put forward refers more particularly to houses in which the employment of bambu and the small pine still obtains, but drawings in the National Library in Paris show that in the 5th and 4th century B.C., their temples and

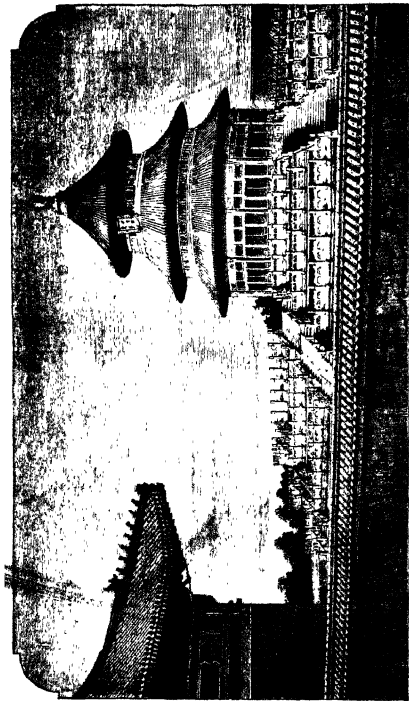
walls were constructed in the same way as at the present day, and that more than twenty centuries have passed without any material change in general design beyond that of the increased size given to their structures and to the elaboration of the tiled roof with its ridges and hips. The consequent result was the demand for beams and columns of far greater dimensions and strength; so that at a very early period cedar-wood was imported from the southern provinces; the framing of the roof still remained, however, of a most elementary character, in which there was no attempt at trussing, and balks of timber of immense scantling were piled one on the other to an extent unknown in any other country, this necessitated—first, their support by columns of great size, those in the Palace of Heaven being 4 ft. in diameter, and from 60 to 70 ft. high, secondly, the employment of brackets to lessen the bearing of the great beams, and thirdly—in order to carry the widely projecting eaves—the assemblage of a series of bracket corbellings, to which attention has been already drawn. In their treatment of columns and beams the Chinese method is different from that of any other style; there are no capitals to the columns, and the beams they carry at various heights are tenoned into the column, which is always carried up to the roof plate, and constitutes externally a visible part of the wall rising above the verandah roof. This singular arrangement arises from their system of building; the main roof is always designed and framed first, and is then hoisted on to the columns, the position of which and of their stone foundations can only be determined after the framing of the roof is completed; subsequently the verandah roof is framed and then raised on the smaller columns which constitute its enclosure. In order to light the interior of the temple or hall, the intervals between the columns rising above the verandah roof might have been filled with pierced screen work constituting a clerestory, but this is not in accordance with Chinese custom; for although such screens would have received ample protection from the sun by the widely projecting eaves carried on brackets, this interval is always filled in with beams also tenoned into the columns, and generally brought out so as to be flush with the column face. A description has already been given of the roof in which the upper part of the gallery at each end rises above the lower part of the roof of less pitch, and which is known to the Chinese as *Primoya.* This, however, is not universal, sometimes the roof is hipped in the usual way at each end, the section through the front and side being the same. The roof of the superstructure shown in Woodcut No. 501 is thus hipped, whilst on the other hand that of the Buddha hall in the Summer Palace, near Pekin (Woodcut

No. 494) is of the Primoya type, similar to that shown in Woodcut No. 490.

Timber and brick are the chief materials employed in nearly all Chinese buildings, stone being employed only for the foundation piers on which the columns rest. Brick walls are built in between the wooden columns—being carried up only to the first beams; in other words they are employed only as a filling-in, and not as a support for the roof. Chinese pagodas, on the other hand, are built entirely in brick with occasionally, as in the porcelain-pagoda at Nanking (now destroyed), a covering of porcelain tiles; there are also two halls of Buddha, lofty two-storey buildings, which are built in brick with terra-cotta glazed plaques outside. The *p'ailus*, *p'ai-fangs*, or memorial gateways —the analogues of the Indian *Toranas*—when built in stone are sometimes copies of wooden structures the beams of which are tenoned into the columns or piers, in those of a more monumental character which form the chief entrance gateways to some of their temples—as in that erected to Confucius in Pekin (Woodcut No. 502), they are sometimes in marble with arched openings, showing that the Chinese were well acquainted with the principles of the arch and the vault. There are also some examples known as beamless temples attributed to the 11th century,[1] which were roofed with barrel vaults, and probably served to store archives and relics on account of their incombustible nature.

The walls which enclose their cities are built in brick, and their bridges in stone with marble casing and balustrades. The raised platforms for altars, some of their temples, and generally the Imperial Halls, are all built in marble; otherwise all Chinese constructions are in timber, the roofs being covered with glazed tiles, yellow, if Imperial structures, and green, blue or purple for others; the ridge and hip rolls with the dragons and fishes which surmount their roofs are all in glazed terra-cotta. Great importance is attached to the orientation of temples, which as a rule face the south. This, however, is determined by geomancers who have to take into account the configuration of the ground, magnetic currents, the proximity of springs, and rising vapours in their vicinity: to these influences is given the title of *Fong-shuie*—meaning literally "wind and water"—and no structure of any kind, whether temple, palace, or house, is ever built unless in accordance with *fong-shuie*. In order to give more importance to the imperial structures, whether temples or reception halls, they are raised on platforms with triple terraces and balustrades round, and three flights of

[1] 'R.I.B.A. Journal,' 1894-95, 3rd series, vol. ii. p. 45.

steps on the south front; the flight in the middle is subdivided into three, the central portion forming an inclined slope which is covered with dragons and clouds in relief, in some cases the treads of the steps on each side are also carved with dragons in relief; the terraces, balustrades and steps being all in white marble. The same description applies to the north and south altars of the Temple of Heaven, and to those of the Temple of Agriculture.

492. Temple of the Great Dragon (From a Photograph by Beato.)

CHAPTER III.

CONTENTS.

Temple of the Great Dragon—Buddhist Temples—Tombs—Pagodas—P'ai-lus—Domestic Architecture.

TEMPLE OF THE GREAT DRAGON, PEKIN.

THE most magnificent temple in the capital, so far as we know in the empire, is that known as the Temple of Heaven, or the Great Dragon. It is situated close to the southern wall of the city in a square enclosure measuring about a mile each way. From the outer gate a raised causeway leads to the temple, on either side of which, for the accommodation of the priests, are numerous buildings approached by frequent flights of steps leading down to a park beautifully planted. In the central part of the enclosure are two altars, distinguished as the North and South. The South altar consists of a circular platform of three concentric terraces, the upper one 90 ft. in diameter, the middle terrace 150 ft., and the lower one 210 ft., all enclosed with balustrades and raised about 6 ft. one above the other; these terraces are ascended by four flights of steps on the north, east, south and west sides respectively. In the centre of the platform are the five sacred vessels found in all Buddhist temples, over which a canopy is erected on the occasion of a celebration. The North altar is situated about 1500 ft. north of the South altar, differing from the latter only in the number of flights of steps, there being eight flights, three of which are placed side by side on the north end, the central portion of the middle flight forming a gradual slope and covered with dragons and clouds in relief. In the centre of the upper terrace is the circular structure known as the Ch'i-nien T'ien (Heaven's Palace) shown in the woodcut No. 492, which has the appearance of a three-storeyed structure, but in reality consists of a central hall 90 ft. in height with double aisles round, the roofs over which are shown in the woodcut. The roof with its widely projecting eaves and the drum below are carried by four immense columns, 4 ft. in diameter, the second roof and drum are carried by twelve

columns, as also the lower storey. The construction inside is of a very extraordinary kind; at the level of the upper part of the second roof carved beams are tenoned into the four columns, over which, between each are provided two other columns, forming a sort of attic storey, to support the roof and the internal dome. Though not indicated in the woodcut, the four great columns, which rise to the roof, are visible outside, between them and at the back of the attic columns the outer case of the drum is constructed with curved timbers, and there are no windows as shown. As the horizontal beams, or plates, are only tenoned into the columns, and the weight they have to carry is greater than such beams could carry, it has been found necessary to provide other beams underneath, on which they rest, and these beams are sunk into others crossing from the four great columns to four of those of the aisle or clerestory — an arrangement of a most complicated character. The interior of the dome is horizontally subdivided into three parts, the lower decorated with an assemblage of brackets forming a frieze, the middle part panelled and the centre sunk with a deep coffer; all the woodwork is gilded, the upper part of the columns with patterns in imitation of damask work. The Temple of Heaven is said to have been erected about the year 1420 A.D., and originally the roof of the upper storey was covered with blue tiles, that of the middle one with yellow tiles, and of the lower one green, but the Emperor Kien-lung (1736-1796) changed them all to one colour of a deep ultramarine blue. As this temple is said to have been burnt down in 1860, it is probable that the existing building is only a copy. A second circular temple in the enclosure of the Temple of Heaven, the Huang-Chiang-yen, has one roof only, and the dome inside carried on eight columns is similarly decorated with two beaded friezes, and panelled above with a circular plaque in the centre. There is a third example of a circular dome in the Chung-ho-t'ien, the Hall of Central Peace, in which the dome is decorated in the same way, but is much finer in design and decoration than the other two, and a fourth in the Temple of Agriculture of which an excellent lithograph is published in vol. xvii. of the 'R.I.B.A. Transactions, 1866-67.' The bracket frieze found in these circular temples exists also in the rectangular ones; in both cases their origin can be traced to the constructive forms evolved in the support of the widely projecting eaves, they are employed also in the deeply coffered ceilings of some of the halls of the Imperial Palace, such as those of the Chio-tai Chung-ching, and other halls of reception and audience.

With the exception of the examples just described, and a few others, all the temples in China, whether Confucian, Taoist or Buddhist, are based on the T'ing type, differing only in their dimensions. Generally speaking, the temple of a Buddhist monastery is enclosed by a wall, with a monumental gateway or P'ai-lu at the entrance and a series of three detached buildings beyond, placed one behind the other, on a central axis, with courts between, and communicating one with the other by means of covered corridors. The first building is the ex-voto hall with statues; the second is the principal temple, in which are the three images of the Buddhist triad, and the altar with the sacred vessels in front; the building in the rear contains sometimes a miniature dâgaba in marble, in which are enclosed supposed relics of Buddha. To the right and left of the enclosure, and placed symmetrically, are other isolated structures, such as the bell-tower, the library, the pagoda, and the monks' dwellings.

BUDDHIST TEMPLES.

The only Buddhist temple in China of which any plans have been made, or which I have myself had an opportunity of inspecting, is that of Ho-nan, opposite Canton. Unfortunately it is comparatively modern, and by no means monumental. It is a parallelogram enclosed by a high wall, measuring 306 ft. by 174 ft. In the shorter front facing the river is a gateway of some pretension. This leads to a series of halls opening into each other, and occupying the whole of the longer axis of the internal court. The first and second of these are porches or ante-chapels. The central one is the largest, and practically the choir of the building. It contains the altar, adorned by gilt images of the three precious Buddhas, with stalls for the monks and all arrangements necessary for the daily service. Behind this, in the next compartment, is a dâgaba, and in its rear another apartment devoted to the goddess Kuan-yin, principally worshipped by women—in fact, the Lady Chapel of the church. Around the court are arranged the cells of the monks, their kitchen, refectory, and all the necessary offices of the monastery. These are generally placed against the outer wall, and open into the court.

At Pekin there are several lamasaries or Buddhist monasteries, of a much more monumental character than that of Ho-nan, but it is very difficult indeed to guess at their arrangement from mere verbal descriptions without dimensions. The gateway of one, represented in Woodcut No. 493, gives a fair idea of the usual mode of constructing gateways in China.

It has three openings of pleasing proportions, and is as well designed as any to be found in China. Behind it is to be seen the dâgaba, to which it leads. a tall form, with a reverse slope, and an exaggerated Htî, so altered from those we are accustomed to in the earlier days of Indian architecture,

493. Monumental Gateway of Buddhist Monastery, Pekin. (From a Photograph by Beato.)

that it requires some familiarity with the intermediate forms in Nepâl and Burma to feel sure that it is the direct lineal descendant of the topes at Sânchi or Mâṇikyâlâ. The dâgaba is square on plan, with an octagonal minaret at each angle,

the central portion shown in the woodcut rests on a series of narrow steps, and an octagonal base with richly carved cornice and plinth, and the representation of the birth of the Bodhisattva on the die. This dâgaba, all in white marble, was erected in 1780 to the memory of the Teshu Lâma Erdeni, who died in Pekin.[1] It is more or less a copy of a Thibetan Chorten, and was probably designed by an architect from that province.

494. Buddhist temple in the Summer Palace near Pekin (From a Photograph by Beato)

The usual form of temple as seen in the towns and villages

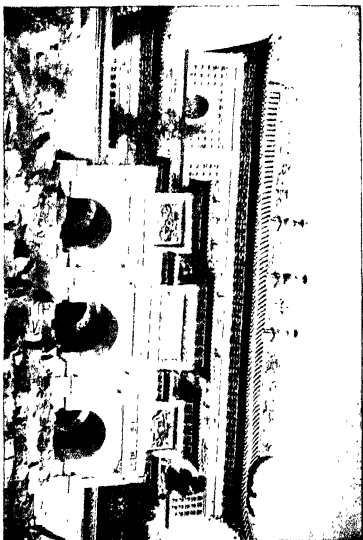
[1] *Ante*, vol. i. p. 294.

is very simple, rectangular on plan, with five bays in the front, which always faces the south; and three at the side; with a verandah and flight of steps in the centre of the south front leading to the central doorway. Exceptions to the ordinary type are found in two temples, one of which, T'siang Cha, the Buddhist temple of the sleeping Buddha in the Summer Palace near Pekin (Woodcut No. 494 and Plate LVIII.) is perhaps the finest architectural achievement in China. The building consists of two lofty storeys, built in brick and faced with glazed terra-cotta in bright colours, imitating the timber framed construction of the usual T'ing Temple. The spaces between the terra-cotta columns are decorated with an immense series of miniature niches, one above the other, and side by side, each occupied by a cross-legged figure of Buddha. This temple is erected on an eminence, forming a conspicuous feature in the landscape, and has perhaps the richest ridge cresting to be found in China; there are three finials in the centre, dragons at each end and others between; the roof belongs to the I'rimoya type, and has heavy hip rolls terminating in dragons. What is most unusual in this temple is the range of circular-headed windows to each floor (Woodcut No. 494); in the ordinary temple there are no clerestory windows, all the light to the interior is supplied through the doorway and the windows at the back of the verandah. This temple and a small bronze pagoda near it were the only buildings preserved in the Summer Palace on its destruction in 1860, the former on account of its beauty, and the latter its indestructibility. There is a second Buddha's hall near Pekin of the same type of design, with a double eaves-course and balcony, which has destroyed its simplicity. In this latter, built in the Shao-hu-t'ien grounds, the circular columns and squared beams of its timber prototype have been reproduced in glazed terra-cotta, these features being purely decorative as they are carried on the brick wall below.

Another type of temple, dating from the 15th century, and known as the Wut'a-Ssû near Pekin, consists of a lofty square pedestal, which recalls the lower portion of the celebrated temple at Bodh-Gayâ (Woodcut No. 19). The pedestal is subdivided into five storeys by string-courses, each storey enriched with arcaded niches containing statues of Buddha, the whole crowned with five square dâgabas, the centre one with thirteen projecting eaves, and the angle towers with eleven projecting eaves like the Pa-li Chwang Pagoda (Plate LIX.), 15 miles east of Pekin.

PLATE LVIII

Buddhist Temple T'siang Cha

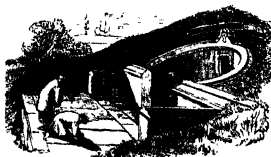
[*To face page* 464 Vol. II

TOMBS.

Like all people of Turanian origin, one of the most remarkable characteristics of the Chinese is their reverence for the dead, or, as it is usually called, their ancestral worship. In consequence of this, their tombs are not only objects of care, but have frequently more ornament bestowed upon them than graces the dwellings of the living.

Their tombs are of different kinds; often merely conical

495. Chinese Grave (From Fortune's 'Wanderings in China.')

mounds of earth, with a circle of stones round their base, like those of the Etruscans or ancient Greeks, as may be seen in Woodcut No 495, which would serve equally well for a restoration of those of Tarquinia or Vulci

A very common arrangement is that of a horseshoe-shaped platform, cut out of the side of a hill. It consequently has a high back, in which is the entrance to the tomb, and slopes off to nothing at the entrance to the horseshoe, where the wall generally terminates with two lions or dragons, or some fantastic ornament common to Chinese architecture.

496. Chinese Tomb. (From Fortune's 'Wanderings in China.')

When the tomb is situated, as is generally the case, on a hillside, this arrangement is not only appropriate, but elegant (Woodcut No. 496). When the same thing is imitated on a plain, it is singularly misplaced and unintelligible. Many of the tombs are built of granite, finely polished, and carved with a profusion of labour that makes us regret that the people who can employ the most durable materials with such facility should have so great a predilection for ephemeral wooden structures.

When the rock is suitable for the purpose, which, however, seems to be rarely the case in China, their tombs are cut in the rock, as in Etruria and elsewhere; and tombs of the class just described seem to be a device for converting an ordinary hillside into a substitute for the more appropriate situation

497. Plan of the Tomb of Yung-lo.

One of the finest examples of the tumulus type is the tomb of Yung-lo of the Ming dynasty near Pekin 1425 (A.D.) (Woodcut No. 497); this consists of an earth mound about 650 ft. in diameter, with a retaining wall crenellated and about 20 ft. high round it. This is preceded by a square tower (E) in three storeys, each set slightly behind the one beneath it; in front of this is an enclosure 500 ft. wide and 1150 ft. long, with an entrance gateway (A) in front and subdivided by cross walls into two courts with a second gateway (C) between them. In the further court is the altar (D), and in the first or principal court the great Ancestral Hall (B), which is one of the finest examples of Chinese

architecture. It belongs to the T'ing type already described, but is perhaps the largest example in China, being 220 ft. in length and 92 ft. deep. There are nine bays in front and five on the sides—the entrance is in the centre of the long front which faces the south, and there is no verandah. The hall in which the ancestral tablet of Yung-lo is placed, consists of nave and aisles of the same height and outer aisles all round roofed over at a lower level corresponding with that which in the temples forms a verandah, similar to that shown on plan in Woodcut No. 504 where, however, there are seventeen bays. The main roof is supported by thirty-two columns, 37 in. in diameter and 36 ft. high, the panelled ceiling of both nave and aisles being at the same level. The twenty-eight columns carrying the verandah and chambers at the back are 21 ft. high.

498. Group of Tombs near Pekin. (From a Photograph by Beato.)

Like the Temple of Heaven it is raised on a platform, rectangular in this case, with a triple terrace surmounted by marble balustrades and three flights of steps in front, the central flight

subdivided into three, of which the middle part has a gradual slope carved with dragons and clouds in relief. In the further corner is the great altar with the five sacred vessels.

Occasionally, however, the Chinese do erect tombs, which, though ornamental, are far from being in such good taste as the two forms just quoted. A tumulus is considered appropriate for this purpose all the world over, and so is the horseshoe form under the circumstances in which the Chinese employ it; but what can be said in favour of such an array of objects as those shown in the preceding Woodcut No. 498? Judged by the standard of taste which prevails in China at the present day, they may be considered by the natives as both elegant and ornamental, but it would be difficult to conceive anything which spoke less of the sepulchre, even from a Chinaman's point of view; while, on the other hand, their dimensions are such as to deprive them of all dignity as architectural objects.

T'AIS OR PAGODAS.

The objects of Chinese architecture with which the European eye is most familiar are the *t'ais* or pagodas In the south they generally have nine storeys, but not always, and in the north they range from three to thirteen. It has usually been assumed that they owe their origin to the religion of Fo or Buddha, being nothing more than exaggerated dâgabas, but there are two ancient Chinese drawings in the National Library, Paris, reproduced in Paleologue[1] which represent the *taas* or *t'ais* of the Imperial Palace at Pekin, one of them shows a square tower in three storeys, each receding behind the other, so as to leave a terrace round and a pavilion, or shrine, at the top; the other has a circular tower in five storeys, diminishing in diameter as it rises with a spiral pathway round, which recalls that of the ziggurat at Khorsâbâd. According to Terrien de Lacouperie,[2] in his work on the western origin of early Chinese civilisation, the relations of Chaldea and China date back to the 23rd century B.C., when the Bak tribes migrated east from Elam and Babylonia into China, bringing with them the custom of building in brick, the erection of lofty towers for astronomical purposes, the cutting of canals, embanking of rivers, and other elements of their western civilisation Of later date, but showing how the traditional form of these towers was handed down in the East, at Samara on the Tigris, 60 miles north of Bâghdâd and

[1] 'L'Art Chinois,' pp. 101 and 103.
[2] Terrien de Lacouperie, 'Western Origin of Chinese Civilisation,' 1894.

attached to the mosque founded there in the 9th century of our era, by the grandson of Hârûn al Rashîd, there still exists a minaret in brick, about 160 ft. in height, with spiral passage winding round, almost identical with that represented in one of these Chinese drawings, being crowned with a circular turret instead of the pavilion shown in the Chinese drawing. There are no examples in China with external winding paths or flights of steps, these latter are usually enclosed within the brick walls, which are sometimes of great thickness, those in the Pa-li Chwang Pagoda, near Pekin, measuring 18 ft. In the T'ien-pong-tah, the hexagonal seven-storeyed pagoda at Ningpo, which is 160 ft. high, there is a flight of narrow steps ascending spirally within the walls. Again, according to Dr. Bushell,[1] in his work on Chinese Art, the first large buildings described in the oldest canonical books are the lofty square towers in stone called *t'ai*, of which there are three kinds, viz.: for astronomical purposes, for watch towers and for treasuries or storerooms. The traditional representations of these are those found in the observatory of Pekin, a square tower on the city wall, the towers of the great wall, which are built in stone with arched heads to both doors and windows, showing that, as might have been expected from their early contact with Chaldea, the Chinese were well acquainted with both arch and vault, and the square towers occasionally on the entrance gateways to the towns and elsewhere on the city walls which are now utilised as military storerooms; to these might be added the t'ais or pagodas, which though octagonal instead of square on plan, now sometimes serve as repositories for numerous statues of Buddha. Whatever their origin may have been, the t'ais are now identified more with geomancy than with the Buddhist religion, and although some of them contain idols, and in the north have frequently a statue of Buddha on the lower storey, above they consist of solid walls with external balconies used as belvederes or watch towers. The number of these pagodas throughout the county is very great, and no town is said to be complete without one or more.

Of those which existed in China in our own time the best known is the celebrated porcelain tower at Nankin[2] (Woodcut No. 499). Commenced in the year 1412, and finished in 1431, it was erected as a monument of gratitude to an empress of the Ming family, and was, in consequence, generally called the Temple of Gratitude. It was octagonal in form, 236 ft. in height, of which, however, about 30 ft. must

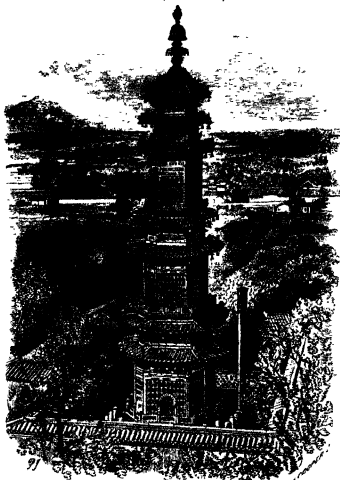
[1] 'Chinese Art,' p. 52.
[2] The tower was destroyed in 1854 during the Taeping rebellion.

be deducted for the iron spire that surmounted it, leaving little more than 200 ft. for the elevation of the building, or about the height of the Monument of London. From the summit of the spire eight chains were suspended, to each of which were attached nine bells, and a bell was also attached to each angle of the lower roofs, making 144 bells in all, which, when tinkling in harmony to the evening breeze, must have produced an effect as singular as pleasing. It was not, however, either to its dimensions or its bells that the tower owed its celebrity, but to the coating of porcelain which clothed its brick walls, as well as the upper and under sides of the projecting roofs, which mark the division of each storey. The porcelain produced a brilliancy of effect which is totally lost in all the representations of it yet published, but which was, in fact, that on which the architect almost wholly relied for producing the effect he desired, and without which his design is a mere skeleton.

499 Porcelain Tower Nankin.

Another celebrated pagoda is that known as "Second Bar Pagoda," on the Canton River. It is a pillar of victory, erected to commemorate a naval battle which the Chinese claim to have gained near the spot. It is, in design, nearly identical with that of Nankin, but of smaller dimensions, and is now fast falling to ruin.

These two are of the usual and most typical form, and so like hundreds of others, that it is impossible to deduce any sequence from them with such representations as we now possess. Though pleasing and purposelike, as well as original, they are somewhat monotonous in design. A tower divided into nine equal and similar storeys is a very inferior design

to that of the minârs of the Muhammadans, or the ordinary spires of Christian churches; and, if all were like these, we should be forced to deny the Chinese the faculty of invention in architecture. In the north, however, the forms seem much

500 Pagoda in Summer Palace, Pekin (From a Photograph by Beato.)

more various. One in the Summer Palace (Woodcut No. 500) is divided into three storeys, with additional projecting eaves under the balconies. Four of the sides of the octagon are longer than the other four, and altogether there is a play of light and shade, and a variety about the ornaments in this tower, which is extremely pleasing. It is much more like an Indian design than any other known in China, and with the

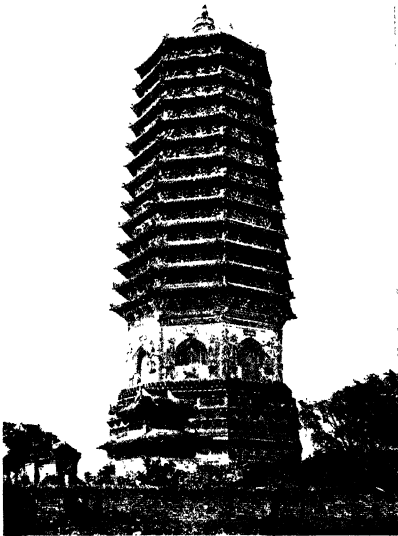
circle of pillars round its base, and the lât or Stambha, which usually accompany these objects further west, it recalled the original forms as completely as any other object in this country.

In direct contrast to this is the Pa-li-Chwang Pagoda (Plate LIX.), about 15 miles east of Pekin. Its thirteen storeys are almost more monotonous than those of the Nankin tower, but they are merely projecting eaves, which take the place of string-courses. Although of slight projection, the eaves are supported by groups of brackets which take the place of a frieze. The ground storey is of greater importance than usual, it is pierced with arched doorways and windows on alternate faces, and is raised on a lofty pedestal enriched with mouldings and carvings, altogether constituting an imposing architectural structure like the Orissan temples, to which it bears some resemblance. The interior is lighted by small openings between the bracket clusters. In contrast with this is the Su-chaw pagoda, with nine storeys, of great height but devoid of any architectural design, the upturned corners of the eaves being extremely ugly.

It is extremely difficult to form a correct estimate of the artistic merits of these towers. Edifices so original and so national must be interesting from that circumstance alone, and it seems almost impossible to build anything in a tower-like form of great height, whether as a steeple, a minâr, or a pagoda, which shall not form a pleasing object from its salience and aspiring character alone, even without any real artistic merit in itself. Besides these qualifications, I cannot but think that the tapering octagonal form, the boldly marked divisions, the domical roof, and general consistence in design and ornament of these towers, entitle them to rank tolerably high among the tower-like buildings of the world.

P'ai-lus.

The P'ai-lus or P'ai-fangs, sometimes utilised as entrance gateways to temples and tombs, are another class of monument almost as frequently met with in Chinese scenery as the nine-storeyed pagodas, and consequently nearly as familiar to the European eye. Their origin is as distinctly Indian as the other, though, from their nature, being easily overthrown, but few examples can be found in a country that has so long ceased to be Buddhist. Fortunately, however, we still possess in the gateway of Sânchi (Woodcut No. 12) the typical example of the whole class; and we find them afterwards represented in bas-reliefs and in frescoes in a manner to leave no doubt of the frequency of their application.

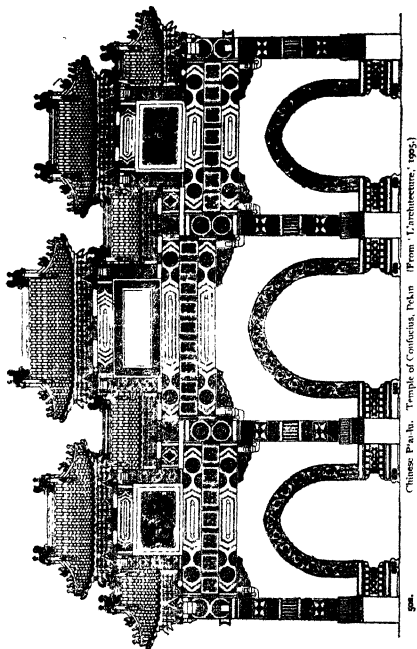
PLATE LIX.

Pa-Li Chwang Pagoda near Pekin
(From R K Douglas' Book, Society of China.')

[*To face page* 472, Vol II

In China they seem almost universally to be employed as honorific monuments of deceased persons—either men of distinction, or widows who have not married again, or virgins who have died unmarried. Frequently they are still constructed in wood, and when stone is used they retain to this hour the forms and details of wooden construction Whatever the material, they consist of either two, four, or six posts, set either on the ground, so as to allow a passage through, or on a platform, as in Woodcut No. 501, though this is quite an exceptional form, their more usual position being in front of some temple or tomb, as in Woodcut No. 493, or of an avenue leading to a tomb, as in the case of that leading to the Ming tombs in which there are five openings. Occasionally they span a street, as in that shown in Woodcut No. 503 at Amoy.

501 P'ai lu near Canton (From a Sketch by Mr. Fergusson)

The posts or piers always carry a rail or frieze bearing an inscription, which is in fact the object for which the monument was erected. The most singular features about them are the tile roofs at various levels, with which they are surmounted, probably for protection, but which, forming heavy masses widely projecting on each side, are exposed to serious injury from tempests. In Woodcut No. 502, representing a gateway at Pekin, it will be noticed that these roofs are carried by a series of superposed brackets in groups copied from those which support the eaves-roofs of the temples. Between the bracket groups which apparently rest only on the top of the walls, there are openings which give to the latter the appearance of being later additions. The P'ai-lu serving as the portal of the cenotaph in white marble (Woodcut No. 493), though built in stone, is a direct copy of timber construction, the cross-beams being tenoned into the piers and having brackets under them to lessen the bearing, here the bracket groups are all in stone, but not pierced between. In the P'ai-lus erected in front of the Hall of Buddha in the Summer Palace (Plate LVIII.), and

of the Temple of Confucius in Pekin (Woodcut No. 502),

502. Chinese P'ai-lu. Temple of Confucius, Pekin. (From 'L'architecture,' 1905.)

although the upper portions are copied from wooden constructions, the entrance doorways have semi-circular arches and belong therefore to arcuated and not trabeated construction.

Probably the Chinese would have spent more pains on their tombs had they not hit on the happy device of separating the monument from the sepulchre. We do so in exceptional cases, when we erect statues and pillars or other monuments to our great men on hill-tops or in market-places; but as a rule, a

503. P'ai lu at Amoy (From Fisher's 'China Illustrated')

man's monument is placed where his body is laid, though it would probably be difficult to assign a good logical reason for the practice. The great peculiarity of China is that in nine cases out of ten they effect these objects by processes which are exactly the reverse of those of Europe, and in most cases it is not easy to decide which is best. In erecting the P'ai-lu, or monument, in a conspicuous place apart from the sepulchre, they seem to have shown their usual common sense, though an architect must regret that the designs of their tombs suffered in consequence, and have none of that magnificence which we should expect among a people at all times so addicted to ancestral worship as the Chinese.

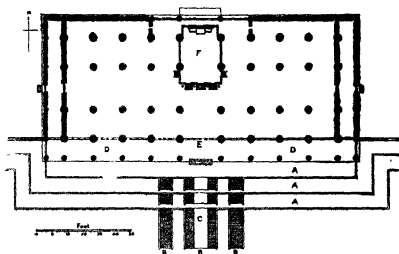
In an historical point of view, the most curious thing connected with these P'ai-lus seems to be, that at Sânchi, before

the Christian Era, we find them used as gateways to a simulated tomb. In India both the tumulus and the P'ai-lu had at that time passed away from their original sepulchral meaning; the one had become a relic-shrine, the other an iconostasis. Two thousand years afterwards in China we find them both still used for the purposes for which they were originally designed.

Palaces and Domestic Architecture.

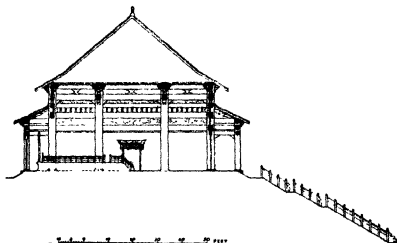
From what has been already said, it will be understood that there is virtually no difference in the architectural design of the temples and palaces; in both cases the halls and palaces consist of a number of pavilions rather than of numerous suites of apartments and halls, as is usually the case in Europe, and consequently they never attain the magnitude essential to architectural dignity. The resemblance of temple and palace is further accentuated by the fact that in front of the great hall of the palace in the Forbidden City are similar platforms with the triple terrace, balustrade, and flights of steps, which have been described in the Temple of Heaven and the tomb of Yung-lo. Unfortunately, the absence of plans makes it impossible to connect the various buildings one with the other. From a bird's-eye view of the Forbidden City (Tzu-chin-ch'eng) it would seem that the buildings therein contained are all of one storey, and surmounted with the same type of roof as that employed in the temples; and as the main fronts of the building all face south, there is a general monotony of appearance, varied only by the height of the several structures, according to their importance. The three principal halls are the Tai-ho-t'ien, or Hall of Highest Peace (built 1602-1722), where levies are held on special occasions, the Chung-ho-t'ien, or Hall of Central Peace, and the Pao-ho-t'ien, or Hall of Secure Peace. The first named is the most important, and it is preceded by what is called a gateway, which externally is similar to the Tai-ho-t'ien in design, but has nine bays instead of eleven on the main front; it is also raised on a platform with a triple terrace, balustrade, and flights of steps.

The plan of the Tai-ho-t'ien will be best understood by reference to Woodcut No. 504, which is the type of all the larger temples and halls. The principal front faces the south, and the hall is raised on a lofty platform with three terraces (A, A, A), rising one above the other and enclosed by balustrades: three flights of steps (B, B, B), give access to the upper terrace, a portion of the central flight, having in the middle, instead of steps, an inclined slope (C) with dragons and clouds carved thereon in bas-relief; the treads of the steps are also carved,

but in lower relief. In front of the hall, which consists of eleven bays, is the open verandah (D, D), and the hall beyond is divided longitudinally into central and side aisles, the former being of the same width as the central bay of the main front. Virtually, therefore, the plan is similar to that of a European church, with nave and aisles running east and west, and a central transept with the principal entrance (E) at its south end, and the Imperial dais (F) in the north transept. The only light

504 The Tai-ho Hall, Pekin

admitted is that which enters through the entrance door, the glazed screens in the rear of the verandah, and three others on the north side. All the side bays and the remaining eight on the north side are filled in with walls in brick, which are plastered over on the inside and outside, and rise to the soffit of the lowest transverse beam. Externally these walls have a very ugly effect, especially as the beams and groups of brackets above are all richly painted in various colours and in part gilded. The roof of the hall is carried on forty columns about 30 ft. high, and of which the diameter is 3 ft. 5 in.; the coffered ceiling is carried on great beams at two different levels with bracketing between them and round the hall. The four central columns are gilded with tapestry or damask designs in relief, the others are painted red, and the beams and ceiling gilded and painted in bright colours. The columns of the verandah, the east and west narrow bays and the store-room and central recess in the rear are 20 ft. high, and carry a lower roof with bracketed eaves, and this with the eaves of the principal roof over the hall gives the appearance

to which reference has been made of a double-eaved roof. The north bay of the hall is roofed at the same level as the verandah, and in the section (Woodcut No. 505) it will be seen that the filling-in of the main walls of the whole hall, and against which the verandah roof rests, consists of a series of beams one above the other, tenoned into the great columns, the spaces between them being treated as friezes and decorated with various designs.

With the exception of the ancestral temple of Yung-lo, the Tai-ho Hall is perhaps the largest in China, but in its design

505. The Tai-ho Hall, Pekin.

it contains the elementary construction of all the temples and halls; sometimes the verandah is carried along the east and west ends, but on the north side it is included in the hall, being covered over with a roof at a lower level. The east and west bays are used for various purposes connected with the structure, whether temple, hall, or palace, and in the latter sometimes utilised as bedrooms or boudoirs. As a rule the halls are ceiled above the tie-beam; the ceiling being divided into coffers; more importance is given to the central bay, which is sunk into deep coffers with bracket friezes round them. Some of the halls are covered with an open timber roof, in which the unwrought rafters covering the roof contrast with the elaborate painting and gilding of the columns and the heavy superposed beams of the roof. There does not seem to be any rule regulating the east and west ends of the main roof; sometimes these are hipped, as in the Tai-ho Hall and the Hall of the Classics, sometimes the I'rimoya prevails,

but in both cases the hips have heavy rolls covering them, crowned with a series of miniature griffons. The greater number of the buildings in the Forbidden City have one storey only; to these there are some exceptions, where an upper floor, of the same height as the verandah storey, is carried on the level of the upper portion of the roof of same, and has a projecting balcony round the outside. In these cases there are windows to light the storey. In the Wan-fo pavilion there are three storeys all with verandahs.

DOMESTIC ARCHITECTURE.

It is in their domestic architecture, if in any, that the Chinese excel; there we do not look either for monumental grandeur or for durability, and it is almost impossible to resist being captivated by the gaiety and brilliancy of a Chinese dwelling of the first class, and the exuberant richness and beauty of the carvings and ornaments that are heaped on every part of it.

The principal difference between the palaces and the Chinese dwellings of the better class lies in a much lighter system of construction, there is the same general disposition of the plan, viz., a series of detached blocks, separated by open courts or gardens and placed in communication with one another by covered corridors. All Chinese habitations, however, are subjected to official rules, which prescribe the dimensions in width and height, and the number of columns which may be used. The principal hall, for instance, is not allowed to be wider than three bays, if for a man of letters only; five, if for a mandarin, seven for a prince, and only the palace of the emperor may have nine or more bays. These rules, which have from time immemorial been strictly enforced, have curtailed the development of style, so that the architect has only been able to exercise his originality in details of a decorative kind, and this probably accounts for the overloading of the structure with useless ornament, or in the accentuation of the curves given to the ridge cresting, and the raising of the ends of the eaves at the angles to such an extent as sometimes to carry the water falling on them back into the roof. In the arrangement of their houses there is, however, no longer the rigid symmetry which governs their temples or palaces. When on level ground they are surrounded by picturesque gardens with small lakes, on the borders of which the principal reception rooms are built, with terraces and marble balustrades; and, if in a hilly country, every advantage is taken to place their pavilions on prominent sites, so as to command the best

views and add to the beauty of the landscape. The same remark applies equally to portions of the Summer Palace; those parts of the palace which faced the lake were symmetrically arranged round an immense court, but on each side the pavilions and terraces were planned to obtain picturesque effects either

506. Pavilion in the Summer Palace, Pekin (From a Photograph by Beato.)

overlooking the lake, or when in the rear where the ground rises rapidly, to emphasise the various eminences. Woodcut No. 506 is a good example of one of these pavilions in the Summer Palace, which, when interspersed with trees and water and rocky scenery, aid in making up a very fairy-like landscape,

but can scarcely be considered as an object of dignified architecture.

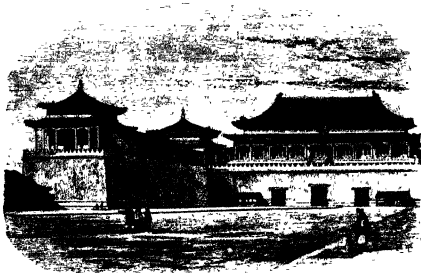
It is not so much on its forms that Chinese architecture depends as on its colours, and those in the roofs of the palaces in Pekin covered with yellow glazed tiles—a colour restricted to royal structures—have an exceptional magnificence, as also the ultramarine blue tiles of the Temple of Heaven. There is also a great variety of colour in the crested ridges and the terminations of the covering tiles, which goes far to redeem the exaggeration of their curved eaves—the columns are usually painted red, the friezes and openwork green. Blue marks the floors and stronger lines, and gilding is used profusely everywhere. Whether this would improve a finer or more solid style of art may admit of doubt; but it is certainly remarkably pleasing in China, and singularly appropriate to the architecture we have been describing, and grouped as these buildings usually are around garden courts, filled with the gayest flowers, and adorned with rock-work and fountains more fantastic than the buildings themselves, the fancy may easily be charmed with the result, though taste forbids us to approve of the details.

Occasionally, however, the Chinese attempted something more monumental, but without much success. Where glass is not available of sufficient size and in sufficient quantities to glaze the windows, there is a difficulty in so arranging them that the room shall not be utterly dark when the shutters are closed, and that the rain shall not penetrate when they are open. In wooden construction these difficulties are much more easily avoided; deep projecting eaves, and light screens, open at the top, obviate most of them: at least, so the Chinese always thought, and they, consequently, have had very little practice in the construction of solid architecture. It is singular therefore that in the Buddhist temple in the Summer Palace near Pekin (Woodcut No. 494 and Plate LVIII.) they should have been able to produce a structure which is remarkable for its elegance and good design.

Their most successful efforts in this direction, however, were when they combined a solid basement of masonry with a light superstructure of wood, as in the Winter Palace at Pekin (Woodcut No. 506). In this instance the height and solidity of the basement give sufficient dignity to the mass, and the light superstructure is an appropriate termination upwards.

This last illustration is interesting, because it enables us to realise to a certain extent what may have been the general effect of the palaces of Nineveh and Khorsâbâd in the days of their splendour. Like this palace, they were raised on a solid basement crowned with battlements, the superstructure, however,

externally at all events, being of a more solid nature, with flat terraced roofs instead of those covered with tiles as in Pekin.

The resemblance, however, is curious, and as there are numerous examples throughout the empire in which, instead of the plain beams as shown in Woodcut No. 505, are circular and

507. View in the Winter Palace, Pekin (From a Photograph.)

pointed arched openings, they may be taken as some evidence of the origin of Chinese architecture already mentioned (p. 466), showing that in these great arched gateways they were continuing the tradition of the earlier examples in the Great Wall of China, which bear the closest resemblance, both in design and construction, to the entrance gateways of the Assyrian palaces.

The engineering works of the Chinese have been much extolled by some writers, but have less claim to praise as works of science than their buildings have as works of art. Their canals, it is true, are extensive; but with 300,000,000 of inhabitants this is small praise, and their construction is most unscientific. Their bridges, too, are sometimes of great length, but generally made up of a series of small arches constructed on the horizontal-bracket principle, as nine-tenths of the bridges in China are, and consequently narrow and unstable.

To these, however, there are many notable exceptions, in which the principle of arched and vaulted constructions, as in the marble bridge with seventeen arches in the Summer Palace near Pekin, with sumptuous balustrades, all in white marble, a

second example, also in white marble, with nine arches, in Pekin, and a third at Pusilanghi across the Hun-ho river, of immense length, having a balustrade of vertical slabs between posts or piers, with lions carved on each, the whole structure being in white marble.

Their most remarkable engineering work is certainly the Great Wall, which defends the whole northern frontier of the country, extending over hill and dale for more than 1200 miles as the crow flies. It is, however, of very varying strength in different places, and seems to be strongest and highest in the neighbourhood of Pekin, where it has generally been seen by Europeans. There it is 20 ft. in height, and its average thickness is 25 ft. at the base, tapering to 15 ft at the summit. There are also towers at short distances whose dimensions are generally about double those just quoted for the wall[1]

However absurd such a wall may be as a defensive expedient, it proves that at least in 200 B.C. the Chinese were capable of conceiving and executing works on as great a scale as any ever undertaken in Egypt. The wonder is, that a people who 2000 years ago were competent to such undertakings should have attempted nothing on the same scale since that time. With their increasing population and accumulating wealth we might have expected their subsequent works to have far surpassed those of the Egyptians. It, however, remains a problem to be solved, why nothing on so grand a scale was ever afterwards attempted.

In the rear of the Great Wall, in the Nan-kau Pass, there is an archway of some architectural pretension, and which is interesting as having a well-ascertained date, A.D 1345.[2] Its dimensions are considerable, and it is erected in a bold style of masonry (Woodcut No. 508) The upper part is a true arch, though it was thought necessary to disguise this by converting its form into that of a semi-octagon, or three-sided arch. On the keystone is a figure of Garuda, and on either side of him a Nâga figure, with a seven-headed snake hood, and beyond that a class of flowing tracery we are very familiar with in India about the period of its erection. Its similarity to the Nepalese gateway at Bhatgâon (Woodcut No. 160) has already been remarked upon, and altogether it is interesting, as exemplifying a class of Indian ornamentation that came into China from the north. If we had a few specimens of art penetrating from the south, we might find out the secret of the history of Buddhist art in China.

[1] An interesting series of photographs of the Great Wall have been reproduced in Dr. Wm. Edgar Geil's work, 'The Great Wall of China,' 1909

[2] 'Journal of the Royal Asiatic Society,' vol. vii. p. 331; N.S. vol. v pp 14, *et seqq*.

However admirable and ingenious the modern Chinese may be, it is in the minor arts—such as carving in wood and

508 Archway in the Nan-kau Pass (From a Photograph.)

ivory, the manufacture of vessels of porcelain and bronze, and all that relates to silk and cotton manufactures In these they certainly excel, and reached a high degree of perfection while Europe was still barbarous, but in all the higher branches of art they take a very low position, and seem utterly unprogressive

Their sculpture is more carving than anything we know by the higher name, and although in their painting they would seem, at one time, to have been far in advance of that found in Europe, both in the complete maturity of the art and in the mastery of the brush, within the last 300 years there has been a serious decline, so that it now scarcely rises above the level of decoration. Their architecture also stands on the same

low level as their other arts, it is rich, ornamental, and appropriate for domestic purposes, but ephemeral and totally wanting in dignity and grandeur of conception. Still it is pleasing, because truthful; but after all, its great merit in the eyes of the student of architecture will probably turn out to rest on the light it throws on the earlier styles, and on the ethnographic relations of China to the surrounding nations of Eastern Asia.

CHAPTER IV.

JAPAN.

INTRODUCTORY.

CHRONOLOGY—ORIGINAL SOURCES, ETC

Event		Date
Accession of the first Mikado	B.C.	660
Conquest of Korea by the Empress Jin-go	A.D.	201
Buddhism introduced from Korea	A.D.	552
Kiô-to made the capital	A.D.	794
The Shogunate established at Kama-kura by Yori-tomo	A.D.	1192
Ashi-kaga dynasty of Shôguns		1338-1573
Yedo (now Tôkio) founded by Ieyasu		1590
Hide-yoshi invades Korea	A.D.	1592-1598
Toku-gawa dynasty of Shôguns	A.D.	1603 1868
Japan closed to all foreigners by Iemitsu	A.D.	1640
First treaties with European powers	A.D.	1857-1859
The Shogunate abolished and the Mikado restored	A.D.	1868

THE architecture of Japan owes its origin to Chinese sources, the earliest examples remaining being those which were built by carpenters sent over from Korea. The Japanese temples, whether Buddhist or Shintô, are all of the Chinese T'ing type, and the roofs covering them of I'rimoya design, as shown in Woodcut No. 489. In Japan as in China the later developments have as a rule resulted only in further enrichments, the elaborate carving in the Japanese Buddhist temples being carried to excess. In the Shintô temple, on the other hand, the greatest simplicity prevails, more importance being attached to the quality of the wood employed, and to its structural execution, than to any display of diagram work or carving. The pagoda in Japan still retains the ancient design and timber construction of the earliest example remaining, at Hôriuji (Hôriuzi), which was built by Korean carpenters in A.D. 607, and may be looked

upon as the original type of, at all events, the Korean pagoda. The scarcity of wood in China would be sufficient to account for the employment of either brick or stone for the construction of their pagodas, and this is borne out by the two Chinese drawings in the National Library of Paris referred to on page 467, where the lower storeys are shown to be of solid construction in either brick or stone. The Japanese pagodas, on the other hand, even down to the present day, are all built in timber as being better able to resist the shock of earthquakes, and may be looked upon, therefore, as the survivals of those which formerly existed in Korea, in which country they are now however in stone or brick.

The principal source of information on Japanese architecture is that which is derived from photographs, but much is to be learnt from the *meischos* or guidebooks to the various provinces, which in Japan are largely illustrated, and from the prints by Hiro-shige, Yei-sen, and Toyo-kuni. The most valuable works on the subject are those by Herr F. von Baltzer,[1] in which plans section and elevations are given of temples, pagodas, and other structures The papers contributed by Prof. Josiah Conder[2] to the transactions and journal of the Institute of British Architects contain the most complete account of some of the temples and palaces, and are well illustrated Of other works consulted are those by Prof. B. H. Chamberlain, and Mr. W. B. Mason,[3] Mr. E S. Morse,[4] M. Titsingh,[5] Mr. Ralph A. Cram,[6] and Dr. Dresser.[7]

It was not till the second half of the 6th century that Japan emerged from a state of barbarism, and its earliest architectural structures date from the commencement of the 7th century, when the introduction of Buddhism from China through Korea and its revelations stirred the Japanese people to a loftier conception than those which the older Shintô religion had inspired.

The temple and pagoda at Hôriuji near Nara (A.D. 607), the earliest buildings existing, are said to have been erected by carpenters from Korea, and in their design and execution present a completeness of style which must have taken several

[1] 'Das Japanische Haus eine Bautechnische Studie' (1903) 'Die Architektur des Kultbauten Japans' (1907).

[2] 'Notes on Japanese Architecture,' in 'Transactions R.I.B.A., 1877-78,' vol. xxviii. pp. 179-92 'Further Notes and a Description of the Mausoleum at Nikkô' in the 'Transactions New Series, 1885-86,' vol. ii. pp. 185-214, and a third paper on the 'Domestic Architecture of Japan,' 1886-87, in vol. iii. pp. 103-27 and 181-84.

[3] Murray's Handbook to Japan, 8th edition, 1907.

[4] 'Japanese Homes and their Surroundings,' 1895.

[5] 'Illustrations of Japan; Memoirs of the Djogouns,' 1822.

[6] 'Impressions of Japanese Architecture and the Allied Arts,' 1905.

[7] 'Japan, its Architecture, Art, and Art Manufactures,' 1882.

centuries to develop, but of which the sources are gone in consequence of the annihilation of all the early architecture of China. The earliest remains in the latter country are those of the t'ai or pagoda, which are almost universally octagonal on plan, and are built in stone or brick, whereas the example at Hôriuji is square on plan, and constructed entirely in timber. This would lead us at once to doubt the origin so far as China is concerned, especially as in the early records of the Chinese Empire the t'ais are described as being usually square, sometimes of great height and always built in stone to serve as watch towers, treasuries, or store-rooms.

If, on account of their differences in plan and the material of their construction, there is any doubt as to the origin of the Japanese pagoda, there can be none as regards that of the temple at Hôriuji, which represents the simpler type of the *T'ing* design with *Irimoya* side gables identical with those of the temples, palaces, and great halls already described in China. It is, however, not only in the main design but in their constructive and decorative details that the general resemblance is shown, the groups of brackets which support the eaves of the Hôriuji temple and pagoda are found in all the Chinese temples and halls, and in the later examples the employment of the bracket-groups as the decoration in their friezes is found both in Japan and China, so that it would be impossible, except for other reasons, to distinguish between those of the temple at Nikkô and the temples and halls in the Forbidden City of Pekin

In Japan, as in China, where the stereotyped form of roof and its supports seems to have been fixed for all time, the only variety the architect would seem to have been allowed to introduce into his design was its over-elaboration with painting and carving, and this during the last two centuries has in a measure destroyed the simplicity of their earlier work. The framing of the Japanese roofs, however, is, as a rule, superior to that of the Chinese, and in the designs for those of the smaller structures, such as the *Shôrô* or belfry and the *Korô* or drum tower in their temple enclosures, and the entrance doorways, fences, and screens of their domestic architecture, they display a fertility of invention and a remarkable execution in the framing which places them in the first rank as carpenters; like the Chinese, however, they have never understood how to truss their timbers, so that in their roofs there is the same ponderous construction with immense beams one above the other similar to those found in China.

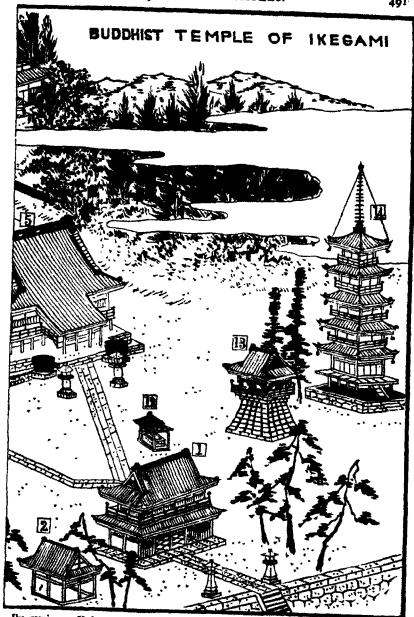
As already stated, the Chinese temples and halls have no clerestory windows, the light being admitted only through the

doorways and the windows in the rear of the verandah, but in the more ancient temples at Hôriuji and Nara in Japan, the designs of which were introduced from China through Korea, there are large openings above the verandah roof and between the columns and beams which carry the main roof; these openings were probably closed with paper or some other transparent material, and to give facilities to keep this in proper repair, narrow balconies are carried round as shown in Plate LX. Already also at a very early period the column verandah was dispensed with in the majority of the temples, its place being taken by a balcony carried on corbels or brackets tenoned into the columns of the main hall, this balcony being always carried round on three sides and sometimes in the rear.

Sufficient protection from the weather was given to this balcony by the wide projection of the eaves of the main roof, and consequently the double eaves of the Chinese temple were not required.

Next to the main temple the most important structure is the entrance gateway, in China the chief entrance was through a p'ai-lu, which was sometimes isolated and at a long distance from the temple In Japan it forms the entrance to each enclosure, and is generally in two storeys, one of the earliest examples is that shown in Plate LX. between the temple and the pagoda at Hôriuji if this is compared with the Yô-mei-mon Gate at Nikkô built under the Toku-gawa Shôguns, Plate LXI, great decadence which has taken place in the style will be easily recognised in the over-elaboration of the more modern structure, where dragons and unicorns are carved in every possible position, and in which the simple curves of the I'rimoya roof have been changed for those of a more complex nature.

509. Bird's-eye View of the Buddhist Temple of

1. Entrance gateway (Yō-mei-mon).
2. Ex-voto Hall (Ema-dō).
3. Belfry (Shōrō).
4. Main temple (Hondo).
5. Founder's Hall (Soshi-dō).
6. Reliquary (Tahō-tō).
7. Library (Rinzō).
8. Priest's rooms (Hōjō).

Ike-gami, near Yedo. (From a Japanese Print.)

9. Reception rooms (Kyaku-den).
10. Treasure house (Hōzō).
11. Kitchen (Dai-dokoro).
12. Water cistern (Chōzu-bachi).
13. Drum Tower (Korō)
14. Pagoda (Go-jū-no-tō).
15. Stone lanterns presented as offerings (Ishi-dōrō).

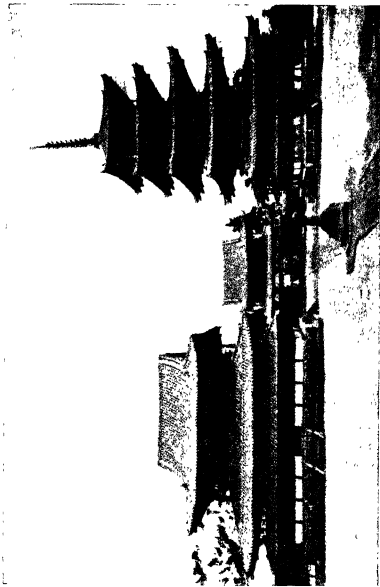
These names are taken from Murray's 'Handbook to Japan,' p. 41. Eighth edition.

illustrations in a Japanese *meischo* or guidebook which represented the Buddhist temple of Ikegami near Tôkio. The *Soshi-dô* or founder's hall (Fig. 5) is celebrated as the spot where the Buddhist saint Nichiren died in 1282 A.D. It will be noted here that the roofs of all the structures are of the I'rimoya type, as shown in Woodcut No. 490. Another remarkable example is the temple at Miyajima or Itsuku-shima which was built on an island, and here the Tori-i, which precedes all the Shintô temples, and sometimes the Buddhist, stands right out in the sea, the temple being built on piles as the various other structures, all of which are connected by open galleries, the whole temple being surrounded by water at high tide.

The general design of the Japanese temples and mausolea (for in many cases the more important buildings within the enclosure are the burial-places of the Daimyos or Princes), corresponds closely with those in China, where the roof is always the ruling feature, and dictates the number and position of the columns provided to carry it. There would seem to be some definite standard probably regulated by the *Ken* or mat with which the floors are covered, and this prescribes the intercolumniation of the columns and supports. Sometimes the temple block is divided into three halls, the oratory (*Haiden*) one intervening hall and the sanctuary (*Hondo*) with the reliquary shrine, and these all come under one roof, an arrangement not found in China.

The main level of the floor of the temple is always raised from 4 to 6 ft. above the ground, so that a flight of steps is required in front leading to the entrance doors of the oratory, and to a verandah carried round the whole structure, over which the widely projecting eaves of the roof projects. This verandah is generally carried on projecting brackets attached to the main columns of the temple which are supported on isolated stone piers and bases, and not on a continuous wall such as exists in all European foundation walls. Sometimes in addition to this verandah or gallery there is a colonnaded loggia along the front of the building extending down the sides, the roof of this loggia sloping like that of the main roof The ancient temple of Hôriuji (Plate LX.) is thus planned, and the inner row of columns being much loftier than those in the front, give the appearance of an upper storey. The same arrangement is found occasionally in later examples as in the Nishi Hongwanji temples at Nagoya and Kiô-to, thus retaining the traditional features of the Chinese temples with their double eaves.

In front of the temple and over the flight of steps leading thereto is a portico carried by columns over which a portion of the main roof is prolonged, and this during the Toku-gawa

PLATE IX.

Temple Entrance Gate and Pagoda of Horiuji

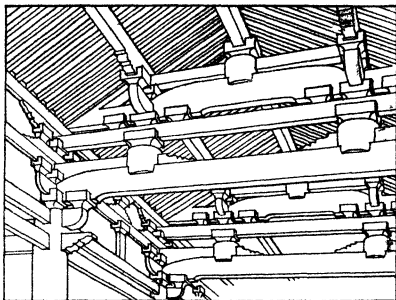
[To face page 493, Vol II

period was further accentuated by the raising of the roof in the centre; sometimes, however, the portico is covered by a gable roof cutting into the main roof, this gable having a double curve —being convex at the top and concave near the eaves. The introduction of this intersecting gable would seem to date from the 17th century, and probably owes its origin to European sources. The raising of the roof eaves in the centre of the main front is often found in cases where there is no porch, probably in order to give more importance to the entrance door underneath, consequently it is almost invariably found in the entrance gateways, and is the principal, if not almost the only, development introduced in later times

The design of the Japanese roof is so nearly identical with that in China that no further description is necessary, except that in the place of the bright yellow, blue and green glazed tiles found in China, those in Japan of the present day are either black or smoke burnt, even in some of the more important temples the tile work has been replaced by wooden tiles and terminals covered separately with thick copper plates. This, however, has not the fine decorative effect of the glazed tiles, but the weight over the roof must in consequence be considerably diminished.

As in China, the ridge at its termination and the heavy rolls descending at each end are all more or less accentuated by their dimensions, and by grotesque representations of dragons, the elaboration of the brackets under the eaves is carried still further by carving the more projecting portions in the shape of dragons, and this fabulous animal is virtually allowed to run wild on the porches of both entrance gateways and temples, so that in the more modern examples, where the wall surfaces and columns are also either carved or painted, there is absolutely no repose.

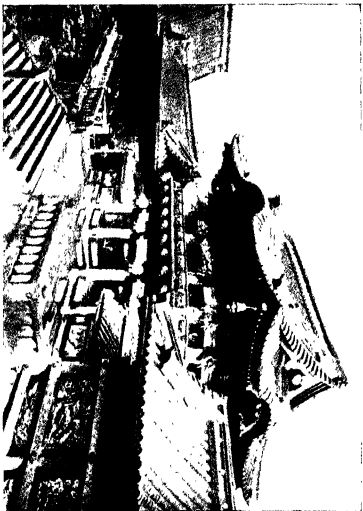
Passing to the internal design of the temples; in the earlier examples the roof would seem to be of that description which is known to us as an open timber roof, showing the rafters which carry the tiles. The entire absence of trussing has already been referred to in speaking of Chinese roofs, and the example of Sangatsu-do at Todaiji Nara (Woodcut No. 510) dating from the 8th century, is interesting as it shows that at this early date roof timbers of considerable size were employed, and that the beams were cambered or curved upwards in the centre to provide against sagging. It is, however, strange that the Japanese carpenters whose work as regards execution and finish is of the highest order, should have remained ignorant of the value of the trussing of timber, and of the employment of diagonal bracing: to the absence of this knowledge, and in some measure to the weakness of the foundations consisting only of

square piers of stone sunk in the earth on which the columns rest, must be ascribed the complete wrecking which at times their temples and houses have undergone through earthquakes.

510. Roof of Sangatsu-do, Todaiji, Nara. From Baltzer.

It would be difficult, in fact, to conceive a worse system of support than that found in the Japanese temples, instead of having continuous walls below the ground, such as exist in all European structures, into which the piers carrying the columns should be built and, sinking the bases of the columns into these piers, they rest on the top only, the result being that with any oscillation of the ground through earthquakes, the columns are shaken off, and in consequence of the immense weight of the roof complete ruin takes place. The preservation of the pagoda at Hôriuji is probably due to the fact that it was erected on a concrete foundation, and in more recent times the brick and stone walls erected in the European manner have stood whilst the timber structures have succumbed. The ceilings of the Japanese temples are comparatively low; they are as a rule horizontal, being divided by ribs single or coupled into square panels; a fluted cove is carried round the hall, and below it is the bracketed frieze, which constitutes so important a decorative feature in Chinese architecture; the space between the brackets is in Japan filled with rich carvings of birds and

animals real and fabulous, and flowers of which the chrysanthemum and the peony are the favourites. The columns supporting the ceiling and roof are either circular or square with the edges rounded off as in China, and in both cases the horizontal beams resting on brackets are tenoned into the column—there being no capital of any description; the walls in the rear of the hall are panelled and, on the outside towards the loggia or gallery, one is left open between the columns for the admission of light which is, however, subdued by blinds in rich casing. The brick walls which in China are built in between the wood columns are not found in Japan, probably on account of the danger in case of earthquakes; their place as a rule is taken by timber panelling which is protected by projecting eaves. Sometimes under the bracket frieze is a second deep band which is carved in panels of the same type as that referred to between the brackets and, if opening into the loggia or under the eaves, is pierced The columns of the interior are generally lacquered, the upper portions being painted with patterns in diaper reproduced from embroideries or carpets, and similar to that which is found in the Chinese temples In the sanctuary beyond the main hall these patterns are all diapered in gold as also the main portion of the beams and ceiling above, and the great altar-pieces and shrines of the Shôguns are all gilded. The most important display of these carved panels is that which is found in the immediate enclosure of the temple where the upper range will be carved with birds and flowers, the middle range with clouds and flying storks, and the lower range with geometrical devices.

An example of this type of decoration is shown in Plate LXI. representing the great entrance gateway of the temple at Nikkô, the work of the Toku-gawa dynasty. Here also will be noticed the overloading of the structure with enriched ornament, where the ends of the brackets are carved with dragon heads, unicorns being employed to emphasise what in the earlier temples was only a constructive detail, viz., the projecting tenons of the horizontal beams which were thus secured to the columns. The curved gables in the centre of the principal and side façades with their heavy ridge crestings have quite destroyed the simpler design as shown in the Temple at Hôriuji As a contrast to the gorgeous ostentation of the Buddhist temples and mausolea, and more especially those built during the Toku-gawa dynasty, the Shintô temples are sometimes of the greatest simplicity, and the wood employed a kind of native elm called *Keyaki*, is left plain, trusting to the grain for its effect, the only decorative work being the brass mounts of various kinds, including those enclosing the base of the columns employed to preserve the work when

PLATE LXI.

The Yo-Mei-Mon Gate, Nikko

[*To face page* 496, Vol II

PLATE LXII.

The Pagoda, Horiuji.

[To face page 497, Vol. II

exposed to damp. The roofs of the Shinto temples are often thatched only, and are therefore comparatively much lighter than the Buddhist tiled roofs. The entrance grounds of a Shintô temple are usually preceded by one or more tori-i, a structure which consists of two circular posts carrying an upper and lower cross beam—the upper of double thickness and rising slightly at each end. The origin of these is doubtless the Indian Torana, though they are usually regarded now as rests for the birds, which frequent these temples, like the pagodas, however, they were probably introduced from China, and constitute a simple version of the gateways of the stûpas and temples in India as shown in Woodcut No. 38.

In Japan, as in China, there appears to be no distinction between the temples and mortuary chapels, and the mausoleum of Ieyasu at Nikkô built on rising ground has the triple enclosure with three entrance gateways, and besides the main temple or mortuary chapel, has all the independent accessories such as the tori-i, pagoda, sacred stable, store-houses, library, drum-tower, belfry, priests' residence, etc., which forms the complement of an important Buddhist temple, and in addition a winding pathway up numerous flights of steps leading to the upper mortuary chapel and monumental tomb

511 Plan of the Horiuji Pagoda. From Baltzer, 'Architektur der Kultbauten Japans'

In addition to the buildings already described, the enclosures of the Buddhist and Shintô temples contain a number of isolated structures, of which in the Buddhist enclosures the most important are those of the pagodas (Go-jû-no-tô), which are found all over the country In contradistinction to the Chinese pagodas, which are invariably octagon on plan, those in Japan, with one exception at Bessho, are always square The most ancient example is the pagoda at Hôriuji, said to have been built by carpenters from Korea in the then Chinese style, if so, it represents a type which has entirely disappeared in China, there is one example with square plan at Korea, but this, following the Chinese custom, is built in brick. Great forests are said to have always existed in Korea, so that in the first centuries of our era there may have been an abundance of timber resulting in wood construction, the perfected type of which we see in the pagoda at Hôriuji (Plate LXII) where, as in the adjoining temple, will

512. Section of the Hôriuji Pagoda. From Baltzer.

be found all the features of the Japanese style such as still form the leading characteristics of the later temples and other structures.

The pagoda at Hôriuji has five storeys, each one set back slightly below the one below. All have widely projecting eaves, carried on brackets and an external gallery. It is raised on a stone base 4 to 5 ft. high, with terrace and verandah round. The crowning feature is a lofty finial with metal rings round, on which bells are hung, and through this finial and from its summit is suspended an immense beam. In the older examples the foot of this beam rests on the stone floor of the pagoda, as it does at Hôriuji, but in more modern examples there is a space left in order to allow of the shrinkage of the timbers of the several storeys, the object of this beam being to tie together the framing of these storeys. These beams are kept in position by framework round them at intervals, but are attached only to the finials. The central beam at Hôriuji is 100 ft. long, 3 ft. square at the bottom and 9 in. at the top. In order to support the timber plates carrying the widely projecting eaves, and more especially at the angles, flying timbers similar to the framing inside are carried down, and the ends of these are left as decorative features on which bells are suspended.

PLATE LXIII

The Belfry at Kawa-Saki

From J. Baltzer.] [*To face page* 499, Vol II

PLATE LXIV

Belfry in the Ie Yasu Temple at Nikko.

From J Baltzer] [To face page 499, Vol II

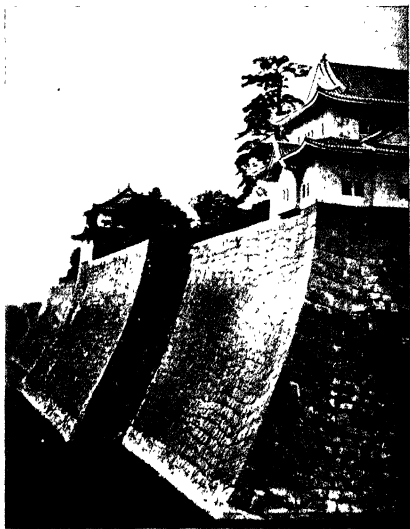
Of about the same date a second pagoda exists at Hokujo near Nara with three storeys. At Yakushiji was erected in 680 A.D. a third example with three storeys, and projecting balconies with eaves covering the two upper storeys, which destroys the rhythm of the earlier examples, and was fortunately not repeated in later structures. In the exceptional octagonal pagoda at Bessho, there are four storeys, the only example existing. The date of the famous Tenno-ji five-storied pagoda at Ôsaka is not known, but the elaborate carving of the brackets and other constructional features with dragons and unicorns suggests a complete restoration, if not the actual rebuilding, of the same.

The other temple structures in the temple grounds consist of the belfry (*Shŏrŏ*), the drum tower (*Korô*), various secondary shrines, a dancing stage (*Kagura-den*), the revolving library (*Rinzô*) often constructed in the shape of a pagoda of two storeys. Priests' rooms and monastic dwellings, the latter of simple construction not differing from domestic work. The belfry is covered with the usual type of roof with I'rimoya gables and widely projecting eaves, it is carried by four columns raised on a platform about 10 ft. high. It is probable that on account of the great weight of the bell, the platform was built in stone originally, which would account for the peculiar concave batter of the walls, provided to withstand the earthquakes, such as in the example at Kawa-saki (Plate LXIII.) near Tôkio. Now these platforms outside the wooden cage carrying the structure have an external casing of timber, which follows the batter of the traditional stone pedestal This shown on Plate LXIV. in the Ieyasu temple at Nikkô and also in the temple enclosure at Ike-gami (Fig. 5, Woodcut No. 509). All the older structures in their design and construction are repetitions of temple buildings to a smaller scale with the same tendency in later examples to over-elaboration of ornament and carving.

PALACES.

The palaces of Japan which originally were simple, unostentatious buildings without defences have, since the military domination of the 16th century, been built within fortified enclosures surrounded by moats. The walls from 20 to 25 ft. high are built with a concave batter, the masonry of the quoins dipping down in order apparently to run less risk of being overthrown by earthquakes, as in the event of an upheaval the stones would fall back by their own weight into their original position (Plate LXV.), representing the walls of the inner castle at Yedo (Tôkio), gives some idea of their construction; the masonry of the main wall is either built in horizontal courses, as here shown,

or with that generally known as polygonal masonry, in which blocks of irregular shape are closely fitted to one another. Towers built at the angles are used for military stores, and ancient prints show that originally stout timber palisades (Fr. *hourds*) surmounted the wall between the towers, behind which were frequently the soldiers' barracks as at Nagoya. The palaces, like the temples, are all of one storey only, the floor being raised from 4 to 8 ft. above the ground, and externally, in their design, belong to the *T'ing* type with *I'rimoya* gables like those in the temples. In plan they consist of a number of blocks put in communication one with the other by covered corridors, not arranged symmetrically like those in the Forbidden City of Pekin, but disposed so as to overlook gardens and small lakes. The principal difference externally, when compared with the temples, lies in the less height and much flatter pitch given to the roof, so much so that they are not concave in section, the roofs having generally one uniform slope. Although externally the blocks have the appearance of constituting a single hall, they are usually subdivided by sliding screens into several rooms, thus the residential block of the Imperial Palace at Kiô-to, measuring about 100 ft. by 60 ft., is divided by partitions into fourteen rooms, the centre one of which lighted only through the outer rooms, constituted the Mikado's sleeping apartment. The three rooms on one side of this block form a suite in which the floors are raised slightly one above the other, the further and highest room furnished with a raised dais indicating the position of the Imperial Throne. Access to all the rooms in a subdivided block is obtained by the external verandah which constitutes the principal feature in all Japanese houses. Although in the great reception rooms the floors consist of polished boards, in the residential portions they are covered with mats (*Ken*) about 3 in. thick, 6 ft. by 3 ft. in ordinary houses, and 7 ft by 3 ft. 6 in in the Imperial Palace, and the dimensions of each room is noted by the number of mats covering it. In one of the blocks of the palace used for enjoying the cool breezes after the summer rain, the largest of the four rooms into which it is subdivided has only four mats, and is about 14 ft. by 11 ft.—a small room for a palace. Whilst the sliding screens which divide the rooms are about 7 ft. high, the rooms are about twice that height, covered with coffered ceilings and coves round. The decorations in the Mikado's palace contrast strongly with those in the temples, which are always richly lacquered, painted, and gilded, whereas in the palace plain white wood with gilt bronze mounts is employed, the walls being painted with flowers and other decorations by the great artists of Japan. The palaces of the Shôguns or military

PLATE LXV.

Castle of Yedo (Tokio).

[*To face page* 500, Vol II

Regents follow much on the same lines as those of the Mikado, but their construction is much more solid, and their decoration much bolder in character. The fortified enclosures round them are increased in number, those of the castle at Kunamoto now destroyed, which was built by Kato Kyômasa towards the end of the 16th century, resembling somewhat the castles of the Middle Ages with two or three outer courts and a keep within the inner enclosure.

DOMESTIC ARCHITECTURE.

If in the palaces of the Mikado and the Daimyos architecture is reduced to its simplest expression, in the Japanese houses it is non-existent, so that the aspect of the streets in the great cities presents a dull and monotonous appearance. The entrance doorway is the only external feature in which there is some variety, but even in the most important houses it is only a simplified version of those found in the more ordinary temples, there being similar street regulations against display as in China. The houses have rarely an upper storey, and the design consists of a square or rectangular block covered with a tiled roof, the interior being subdivided into rooms by sliding screens (*fusuma*) about 6 ft. high. In the better houses there may sometimes be internal courts with buildings on all sides or all round. The chief feature of the Japanese house is the verandah which faces the gardens, and serves as a passage to all the rooms. The floor of the house is raised about 10 in. above the ground, there being no basement of any kind, and the importance of the room depends on the number of mats which cover the floor; those mats measure 6 ft. by 3 ft. each. In a middle-class dwelling the chief reception room may have fifteen or sixteen mats, the smaller rooms four to eight or ten; by pushing aside the screens the whole house can be thrown into one room, and, as a rule, the side facing the south is thrown open during the day to ventilate the house. The design of the verandahs is of the greatest simplicity, with none of the elaboration found in China, and the decoration of the interior is confined to the upper part of the walls above the screens. In the chief reception room is always a recess or alcove in which hanging pictures known as *kakemonos* are suspended, but never more than three in number, and a vase of flowers. The treasures of the house are always stored away in a fireproof storehouse made with walls of mud or clay, and known as a *godown*.

It is not yet possible to foresee what the throwing open of Japan is likely to evolve in the development of their civil and

domestic architecture. Their temples, whether Buddhist or Shintô, with the numerous other structures in the sacred enclosures, will probably still be built in the old timber style as being most in conformity with their customs and religious rites, but already within the last thirty years a large number of buildings, such as palaces, colleges, hospitals, banks, and other commercial structures, as also a few private houses, have been erected in brick or stone which are more or less copies of similar work in Europe and the United States. In their mansions and private houses the Japanese dress, still worn throughout the country, requires that the living rooms should be in accordance with native customs, and this has led to a compromise, whereby in the larger mansions a wing has been added in which the reception rooms are all built in what is known as the "Western style." Hitherto in their domestic buildings extreme simplicity and an avoidance of ostentation has always been the rule, extending even to the royal palaces, so that no evolutions of architectural style may be expected in that direction. In their civil work this rule has not been observed, if we may judge by the few representations which have been published. If, however, the new steel skeleton structures which, starting in the United States, have now been generally adopted in European towns, are found to be capable of resisting the shocks of earthquakes, their employment in Japan might lead to a new development of architectural style, seeing that, in another branch of construction, that of carpentry, the workers occupy a very high position.

INDEX